Integrating Food Sovereignty into Planning: Developing an assessment and action framework for local governments

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A Thesis in
The Special Individualized Program

Presented in Partial Fulfillment of the Requirements
for the Degree of Masters of Arts
(Special Individualized Program – Social Science)
at
Concordia University
Montréal, Québec, Canada

March 2014

CONCORDIA UNIVERSITY

School of Graduate Studies

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Entitled: Integrating Food Sovereignty into Planning: Developing an assessment and action framework for local governments

and submitted in partial fulfillment of the requirements for the degree of

Master of Arts (Special Individualized Program – Social Science)

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Abstract

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In Canada, the jurisdictional authority of local governments over their food system is currently very limited yet communities are directly faced with the consequences of food system issues. As a service provider, local governments have the power to educate, support local initiatives, and enact policies that can shape food systems. Until recently food system considerations had been largely absent from municipal planning yet the field of food system planning is emerging to integrate food system considerations into community planning processes. In Canada, most efforts to document local-governance food system planning have focused on larger, often urban communities. However, producers who live and produce food in small rural communities conduct the majority of Canada's agricultural activities. Using case-study research, this thesis documents how the two small rural communities of Saint-Camille (Québec) and Salt Spring Island (British Columbia) engage in food system planning. By investigating the background, key achievements, barriers and best practices of these communities, the case studies inform a comparative analysis of governance planning processes, project development and community led initiatives. Analyzing these findings from the perspective of the Food Sovereignty concept revealed that Food Sovereignty aspirations were present in food system planning activities of Saint-Camille and Salt Spring Island. Based on case study findings, I developed a Food Sovereignty assessment framework that identified indicators, key considerations, resources and examples for the development and implementation of a Food

Sovereignty assessment framework and action plan for local governments. This thesis is thus situated in the overlap between food system planning theory and practice, a relatively new concern for local governments, and Food Sovereignty, a radical concept with a growing body of literature. I discern this space as Food Sovereignty Planning, which I define as the integration of Food Sovereignty principles into policies, plans, and programming at all levels of governance.

Acknowledgements

This research was supported by the Social Sciences and Humanities Research Council Joseph-Armand Bombardier Graduate Scholarship, the Canadian Federation of University Women Ruth Binnie Scholarship, the Concordia University Adopt-A-Student Shuffle Graduate Scholarship, the Concordia University Merit Scholarship, the Concordia Individualized Travel Grant and the Concordia University Individualized Program Entrance Fellowship.

I would like to thank my principal supervisor, Dr. Satoshi Ikeda, and supervisors Dr. Alan Nash and Dr. Marguerite Mendell for their trust, encouragement and critical feedback throughout my studies at Concordia University and the thesis writing process.

I would also like to extend my appreciation to the INDI office, in particular Darlene Dubiel, for helping me navigate both program and thesis requirements. I am indebted to the individuals whom I interviewed and that have assisted my research in numerous ways. This research project would not have been possible without their generosity and openness.

Finally, my family, friends and my partner Alex Fletcher have provided ongoing support in bringing this thesis to fruition while growing a farm. Thank you.

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List of Acronyms

AAP: Agricultural Area Plans

AFP: Agricultural Farm Plans

ALC: Agricultural Land Commission

ALR: Agricultural Land Reserve

ALUS: Alternative Land Use Services

AoA: Agreement on Agriculture of the World Trade Organization

AU: Agricultural Urbanism

BC: British Columbia

CAE: Center for and Agricultural Economy

CCA: Comité Consultatif Agricole (Agricultural planning advisory committee)

CDSESC: Corporation de Développement Économique de St-Camille

CEDIF: Community Economic Development Investment Fund

CETA: Comprehensive Trade Agreement

CFS: Community Food Security

CIMR: Centre d'Interprétation du Milieu Rural (centre for the interpretation of the rural environment), coordinates demographic and rural development research in St-Camille

CLD: Centre Local de Développement (local development centre)

CPTAQ: Commission de Protection du Territoire Agricole du Québec (QC commission for the protection of agricultural land)

CRD: Capital Regional District

CRISES: Centre de Recherche sur les Innovations Sociales (research centre on social innovations) at the Université du Québec à Montréal

FAO: Food and Agriculture Organization of the United Nations

FCM: Federation of Canadian Municipalities

FPC: Food Policy Council

GHG: Greenhouse Gas

GMO: Genetically Modified Organism

ING: Island Natural Growers, a local chapter of the Canadian Organic Growers

LAU: Loi sur l'Aménagement et l'Urbanisme (QC law pertaining to urban planning and development)

LFS: Local Food System

LOTM: Loi sur l'Organisation Territoriale Municipale (QC law pertaining to municipal territorial organisation)

LPTAA: Loi sur la Protection du Territoire et des Activités Agricoles (QC law pertaining to the protection of agricultural territory and activities)

LVC: La Via Campesina

MAMROT: Ministère des Affaires Municipales, Régions et Occupation du territoire (QC Ministry of Municipal Affairs, Regions and Land Occupancy)

MAPAQ: Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (QC Ministry of Agriculture, Fisheries and Food)

MDDEP: Ministère du Développement Durable, de l'Environnement et des Parcs (QC Ministry of Sustainable Development, Environment and Parks)

MEA: Municipally-Enabled Agriculture

MELS: Ministère de l'Éducation, du Loisir et des Sports (Ministry of Education, Recreation and Sports)

MIR: Meat Inspection Regulation

MRC: Municipalité Régionale de Comté (Regional County Municipality)

NAFTA: North American Free Trade Agreement

NFU: National Farmers Union

NGO: Non-Governmental Organization

OCP: Official Community Plans

PDZA: Plan de Développement de la Zone Agricole

QC: Québec

RMAAQ: Régie des Marchés Agricoles et Alimentaire du Québec (provincial economic regulatory agency pertaining to agro-food, fisheries and forest products)

RNI: Realized Net Income

ROP: Regional Official Plans

SADC: Société d'Aide au Développement des Collectivités (society for the development of collectivities)

SAFE: Sustainability Assessment of Farming and the Environment

SAREP: Sustainable Agriculture Research and Education Program

SCFS: Sustainable Community Food System

SFS: Sustainable Food System

SPS: Sanitary and Phytosanitary Measures

SSI: Salt Spring Island

SSIAA: Salt Spring Island Agricultural Alliance

SSIAAC: Salt Spring Island Agricultural Advisory Committee

SSILTC: Salt Spring Island Local Trust Committee

TLC: The Land Conservancy

TRIPS: Trade-Related Aspects of Intellectual Property Rights

UN: United Nations

UPA: Union des Producteurs Agricoles (QC agricultural producers union)

VFVC: Vermont Food Venture Center

WTO: World Trade Organization

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Introduction

In Canada most food system issues have traditionally been interpreted to be provincial and federal matters. The jurisdictional authority of local governments on their food system is currently very limited yet communities are directly faced with the consequences of food system issues. These include the local effects of climate change and pollution, lack of access to food, diet-related public health problems, permanent loss of agricultural land due to land contamination and/or urban development, financial struggles of food producers, shrinking food infrastructures and services such as local abattoirs, and decreasing employment and tax revenues from agro-food enterprises. Still, as a service provider, local governments have the power to educate, support local initiatives, and enact policies that can shape food systems.

Until recently food system considerations had been largely absent from municipal planning (Pothukuchi and Kaufman 2000, 113-124; Pothukuchi and Kaufman 1999, 213-224). Today, community food system planning is generally understood as the integration of food system considerations into community planning processes, project and policy development. The field of food system planning is currently developing as a growing body of research and planning tools improve our understanding of complex food systems, identify opportunities and challenges, and evaluate the efficacy of food-system interventions (Freedgood, Pierce-Quinonez, and Meter 2011, 83-104).

Food Sovereignty is another concept originating from the unprecedented and alarming ecological, social and economic shortcomings of the contemporary global food system. From the Food Sovereignty perspective, concerns regarding the ecological and socio-economic impacts of our food system are grounded in

food issues often associated with the globalization of a neo-liberal, industrial, capital-intensive and corporate-led food system model. In an age of accelerating global climate change, structural problems of this global food system model include environmental degradation, social injustices, food insecurity, diet related illnesses, food safety, food waste and food price volatility. These challenges raise important social justice and sustainability questions. To address these crucial issues and to challenge the dominant neoliberal model of agriculture and trade, small-scale farmers, peasants, farm workers and indigenous communities formed the transnational peasant organization La Via Campesina (LVC) in 1993. LVC coined the term "Food Sovereignty" in 1996 at the World Food Summit. Food Sovereignty is defined as "the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems" (La Via Campesina 2007[1]). Food Sovereignty is based on the following six interconnected pillars: (1) Focuses on Food for People, (2) Values Food Providers, (3) Localises Food Systems, (4) Puts Control Locally, (5) Builds Knowledge and Skills, (6) Works with Nature (see Appendix I for a table describing the six Food Sovereignty pillars) (International Planning Committee for Food Sovereignty 2009).

In Canada, most efforts to document local-governance food system planning have focused on larger, often urban communities. However, producers who live and produce food in small rural communities conduct the majority of Canada's agricultural activities. My main motivation for conducting my thesis was a desire to research the involvement of small, rural Canadian communities in food system planning. I wanted to contribute to this field of practice and research by

[1] Available online at http://viacampesina.org/en/index.php/main-issues-mainmenu-27/food-sovereignty-and-trade-mainmenu-38/262-declaration-of-nyi

documenting, comparing and extracting findings from the study of locally-driven food system interventions in contexts I felt had been, relatively speaking, left aside. I also wanted to know how deeply the food system change interventions I intended to witness challenged the power structure that shapes the global food system. Were Food Sovereignty aspirations reflected in the food system planning activities of small, rural Canadian communities? And finally, if these planning activities were in fact relatable to Food Sovereignty, how could we start speaking of it as such?

My thesis is that although communities rarely name Food Sovereignty as a guiding concept or goal, the aspirations of Food Sovereignty can be reflected in food system planning activities spearheaded by local governments and communities. This thesis thus stems from the overlap between food system planning theory and practice, a relatively new concern for local governments, and Food Sovereignty, an emerging concept with a growing body of literature. I discern this space as Food Sovereignty Planning, which I define as the integration of Food Sovereignty principles into policies, plans, and programming at all levels of governance.

My research draws from a general exploration of how Food Sovereignty Planning is carried out by Canadian local governments as well as the case studies of two small Canadian communities on how rural local governments engage, or could engage, in Food Sovereignty Planning. Based on these findings I developed a Food Sovereignty assessment framework that identifies key considerations, resources and examples for the development and implementation of a Food Sovereignty assessment framework and action plan for local governments. Two research questions underpin the development of Food Sovereignty assessment and action framework for local governments:

1) How are small rural communities applying Food Sovereignty to create just and sustainable food systems?
2) What Food Sovereignty indicators can communities use to guide and benchmark progress towards just and sustainable food systems?

My research project is elaborated within the field of food system planning but its main theoretical foundation rests on Food Sovereignty as defined by LVC. Food Sovereignty as defined by LVC was primarily developed to fight against the global industrial food regime in the Global South, yet the concept is relevant to the North American context. The relatively recent publication "Food Sovereignty in Canada" (Wittman, Desmarais, and Wiebe 2011) compiles examples of how communities throughout the country are implementing alternative food system models within the framework of Food Sovereignty. Wiebe and Wipf (2011) stress that the Canadian food system does not escape the vulnerabilities of the global food system and identify four challenges relevant to Food Sovereignty in Canada. First, European settlers marginalized complex indigenous food systems at a time where agriculture was already oriented on an export model, there is thus a relatively limited history of farming other than for export. Second, the rapid displacement of farm families caused by industrialization rapidly and drastically reduced the number of farmers and diminished their electoral importance and political clout. Third, the majority of Canadians now live in urban centres and rely on store-bought foods with little connection to production processes. In so far as knowledge is power, this disconnection places power in the hands of corporate players who process and market grocery store items, leaving shoppers and eaters in a relatively disempowered position. Fourth, the dominant self-image of Canada as the "bread-basket" of the world whose agriculture is characterized by high productivity and efficiencies due to cutting edge technologies obscures the fact that the ownership of machinery, seed and chemicals is increasingly concentrated

in the hands of fewer, more consolidated corporations, a process which disempowers farmers (Wiebe and Wipf 2011). This analysis shows that, much like in the Global South, the Food Sovereignty Framework in Canada is concerned with reversing the power equation so as to redistribute powers currently held by corporate players to marginalized communities, farmers and eaters. This redistribution process requires the active engagement of communities as well as that of multiple levels of governments in food system planning.

My research project aims to generate dialogue around, and assist local governments further integrate Food Sovereignty considerations into food system planning. By exploring the capacity of small rural communities to contribute to developing an alternative food system model based on Food Sovereignty, I also hope to make apparent manifestations of Food Sovereignty in the making. The proposed Food Sovereignty framework is different from existing food system assessments in that:

a) It targets small rural communities. Existing food system assessment frameworks, which were designed in large part by and for larger cities, are often not applicable to the context of smaller communities. Small rural communities experience different food system challenges and opportunities than urban counterparts, hence the need to develop the planning resources that address the specific dynamics of these smaller communities.

b) It focuses on the Food Sovereignty concept. Whereas several food system assessments have already been developed and conducted, to my knowledge none have been framed specifically by Food Sovereignty principles. Applying a Food Sovereignty lens to the development of a food system assessment for small rural communities is an innovative approach and a complementary resource to food system planning.

Evolution of thesis

My research interests evolved substantially since entering the INDI program. According to my 2011 research interest statement, I intended to explore the concept of, and to develop a tool for municipal level assessment of sustainability in food systems, where the final product of my research project was to develop a sustainable food systems assessment framework and a set of accompanying resources designed to support municipalities in measuring, understanding, and better managing their food shed. While this first research statement sounds similar to my actual thesis, the end product I then envisioned does not match my final submission. At the time I imagined presenting a set of tables listing the so-called "sustainable food system indicators" whose quantifiable measurement units would provide municipalities with a numerical performance grade so that they could be "objectively" compared to one another. In other words I wanted a ready-to-use framework, a neatly organized resource of the like I had used in my previous consulting work conducting sustainability assessments. This intent to contextualize sustainable food systems for local governments in a linear and sequential fashion never materialized for various reasons.

As I unpacked both broad and specific food-related terms and concepts, the term "sustainable" became less and less compelling when applied to food systems because it failed to encompass crucial social justice considerations. As I studied countless publications and practice of organizations it became apparent that achieving just and sustainable food systems requires a paradigm shift. I came to realize that Food Sovereignty is a concept capable of guiding a reinvention of our relationship to food consistent with both social justice and sustainability imperatives. I eventually decided to base my research upon Food Sovereignty because it recognizes the need for paradigm shift and thus has the potential to

serve as a change agent. Indeed, Food Sovereignty fundamentally challenges the status quo by expressing:

> "…Both the truth of power relations within the food domain and the hope for the democratic, widely dispersed, just distribution of those powers over food … In order to transform the dominant forces, including those related to politics, economics and gender, the environment and social organization, we need to be able to imagine and articulate new relationships to food, community, and ultimately the earth. A major shift in thinking is required. Instead of the current construct of farmers producing and individual consumers buying food, where both the access to and production of food are determined by the market, Food Sovereignty begins from the position of citizens engaged in providing life-sustaining good food. This process must be understood within an ecological, social and cultural context; growing, buying, preparing and eating food is embedded in social and ecological relationships rather than primarily market relationships" (Wiebe and Wipf 2011, 15-16).

Food Sovereignty is also particularly suitable to the study of small rural communities because: Food Sovereignty concerns food producers and most Canadian food producers live in small rural communities; and, Food Sovereignty asserts that just and sustainable food systems are a function of community-based control over the food system. This demands strategies and analysis at the local, regional and national level, thereby explicitly embedding communities within an international context (Wiebe and Wipf 2011). By naming the political and economic power relations inherent to the global food system, Food Sovereignty

takes a firm proactive stance in the current debate concerning the advantages, shortcomings and the future of the contemporary food system. Yet from a Food Sovereignty perspective, food systems are elusive: The various components and motions animating food systems cannot easily be captured with generic, transferable indicators. This is in part because Food Sovereignty is concerned with power relations, democratic aspirations and context-specific civil society interventions, and in part because Food Sovereignty emphasizes the interconnectedness of its principles whose fluid boundaries make the categorization of measurement difficult. My struggle with these findings eventually led me to think of Food Sovereignty indicators as a set of circumstances and intentions that reflect its principles as opposed to quantifiable indicators.

Focusing on Food Sovereignty also narrowed the scope of my research. I attended the International 2012 CittaSlow (Slow Cities) general assembly in Italy and travelled to Seferihisar (Turkey) in 2013 to network with communities engaged in innovative food system planning with the intention of conducting a dozen international case studies to extract Food Sovereignty indicators. However, it became apparent that capturing a community's endeavours from a Food Sovereignty perspective requires an in-depth case study relying on substantial background research, several interviews, and on-site visits. Applying a global horizon to the case studies would have been particularly innovative in part because Food Sovereignty manifests itself and can be applied across cultural and geographic contexts. Nevertheless, such international scope goes beyond the realm of a master's thesis and would be more appropriate for doctorate level research.

Thesis outline

To demonstrate how the aspirations of Food Sovereignty can be reflected in food system planning activities, my thesis first uses the research framework established by the literature review and a general exploration of Food Sovereignty practice in Canada to contextualize and frame my case study research. I then dissect the case study findings through a comparative analysis process, which brings to light specific coinciding elements. Applying a Food Sovereignty lens to these overlapping features leads me to identify Food Sovereignty themes implied in the food system planning initiatives documented in the case studies. I use these themes to propose Food Sovereignty indicators and support my thesis that Food Sovereignty Planning can provide an alternative approach to framing, envisioning and implementing food system change driven by local governments.

Chapter One provides a literature review examining the Food Sovereignty concept, various food system notions and the emergence of food system planning as a field drawing from a variety of assessment methodologies. Chapter Two situates Canadian communities in light of Food Sovereignty Planning by: positioning local governments in relation to federal and provincial legislation; exploring how Canadian municipalities are undertaking food system planning; summarizing the federal, provincial and local policies and regulatory tensions that impact Food Sovereignty; introducing Canadian organizations working towards Food Sovereignty; and, identifying salient features of Canadian food and agriculture to depict what implementation of Food Sovereignty in Canada might involve. Chapter Three first introduces the two case studies and explains why they were selected. I then describe how each community has developed processes, policies and projects that contribute to the advancement of a just and sustainable food system at the local level. I conclude by highlighting the distinguishing and common features that inform the elaboration of Food Sovereignty indicators.

Chapter Four assesses various considerations and implications inherent to the development of a Food Sovereignty assessment and action framework for local governments. It then synthesizes the findings of previous chapters to advance a set of Food Sovereignty indicators and related resources that may assist local governments and communities engage in Food Sovereignty Planning. I conclude by discussing the numerous questions left unanswered and consider what direction subsequent research on this topic might take.

Chapter One: Literature Review

Chapter One reviews the state of knowledge relevant to the Food Sovereignty concept as well as various food system notions and food system planning. Food Sovereignty is explored in light of food security, as a framing device for policy making, in relation to rights claims of international discourse and agrarian citizenship, in terms of how it inserts itself in global governance mechanisms, and as grounded in agroecology and the co-construction of food and knowledge. I also identify other orientations to Food Sovereignty as well as its critics, constraints and counter arguments. Food system terminology discerned in this literature review includes Local Food Systems (LFS) and Food System Sustainability, where critics, constraints and counter arguments are identified for both. Finally, I describe the emergence of the field of food system planning and summarize how food system assessments are tooling food system planning.

About Food Sovereignty

Food Sovereignty in light of Food Security

At the Rome World Food Summit of 1996 the World Health Organization defined Food Security as "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (Food and Agriculture Organization of the United Nations, 2009[2]). Food Security, which is based on the three pillars of food availability, food access and food use, is considered a complex sustainable development issue. Founded in 1974 and reformed in 2009 to be more inclusive, the Committee on World Food Security of the Food and Agriculture Organization

[2] Available online at http://www.fao.org/wfs/index_en.htm

of the United Nations (FAO) is as an intergovernmental body that serves as a forum for review and follow up on Food Security policies (FAO 2012).

The Food Sovereignty concept was also launched at the 1996 World Food Summit by the transnational peasant organization La Via Campesina (LVC) as a response to contemporary food security policies and development programs which were paradoxically identified as the very causes of food insecurity (La Via Campesina 2007). Formed in 1993, LVC is an international movement bringing together peasants, small and medium-size farmers, landless people, women farmers, indigenous people, migrants and agricultural workers from around the world. Comprising approximately 150 local and national organizations in 70 countries from Africa, Asia, Europe and the Americas, LVC represents about 200 million farmers. As an "autonomous, pluralist and multicultural movement, independent from any political, economic or other type of affiliation", LVC aims to defend "small-scale sustainable agriculture as a way to promote social justice and dignity" and to "strongly opposes corporate driven agriculture and transnational companies that are destroying people and nature" (La Via Campesina 2011[3]).

Defined as "the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems" (La Via Campesina 2007[4]), Food Sovereignty calls for a transformation of dominant forces related to politics, economy, gender, the environment and social organization (Wittman, Desmarais, and Wiebe 2010). The emergence of the Food Sovereignty and Food Security

[3] Available online at http://viacampesina.org/en/index.php/organisation-mainmenu-44
[4] Available online at http://viacampesina.org/en/index.php/main-issues-mainmenu-27/food-sovereignty-and-trade-mainmenu-38/262-declaration-of-nyi

discourses evolved in parallel to the development of a global industrial food system that has made food insecurity more prevalent (Carney 2012, 1-17).

What distinguishes Food Security from Food Sovereignty is that the former pays no attention to the methods (how, where, when and by whom) by which it is produced, transformed, shipped and marketed. Unlike Food Security, Food Sovereignty is critical of the global governance model where food is commoditized and emphasizes the social connections inherent to producing, consuming and sharing food as opportunities to reclaiming the food system (Wittman, Desmarais, and Wiebe 2010). Food Sovereignty is thus perceived as a logical precondition to Food Security:

Carney (2012) stresses that unlike Food Security, Food Sovereignty focuses on the governance of all stages of human interaction with food and guarantees a human right to food, thereby implying civic participation in defining Food Security. In her view the Food Sovereignty framework also includes the post consumption stage of human interaction with food, accounting for resource recycling and a closed loop food system (Carney 2012, 1-17).

Windfuhr and Jonsén (2005) present Food Sovereignty as an umbrella term for particular approaches tackling hunger and malnutrition and that all the different interpretations of Food Sovereignty start their analyses from the perspective of those facing hunger and rural poverty. They point out that the right to produce and the right to food are mutually linked because the majority of the hungry and malnourished are smallholders and landless farmers: a fruitful and thorough discussion about how to reduce poverty requires addressing the structural causes of poverty, hunger and malnutrition. They understand Food Security as a technical concept and the right to food, a legal one. In their view Food

Sovereignty is essentially a political concept, thus the scope of the three terms (Food Security, Right to Food and Food Sovereignty) is not strictly comparable because of their different natures (Windfuhr and Jonsén J. 2005).

Lee (2012) classified differing elements of Food Sovereignty and trade-oriented food security into 4 categories: 1) Model of agricultural production, 2) Model of agro-food trade, 3) Primary policy instruments and 4) Approach to genetic resources. For agricultural production, Food Sovereignty is associated with an agro-ecological approach and Food Security with a productivist/industrial approach. Under agro-food trade, protectionism characterizes Food Sovereignty whereas liberalism characterizes Food Security. Primary policy instruments of Food Sovereignty include the International Planning Committee on World Food Security and food security includes the World Trade Organization (WTO) Agreements on Agriculture (AoA), on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and on the Application of Sanitary and Phytosanitary Measures (SPS). The Food Sovereignty approach to genetic resources is based on an anti-patent, communal approach whereas Food Security relies on private property rights. Lee also broadly associates Food Sovereignty with a green rationalist/populist discourse (with local actors as victims) and trade-oriented food security with an economic rationalist/quasi-managerial discourse (Lee 2012, 1).

Schanbacher argues Food Security is founded on and reinforces a model of globalization that reduces human relationships to their economic value, whereas Food Sovereignty is a movement that recognizes the interconnection between human dignity, basic freedoms, and creative production. He draws attention to Food Sovereignty's emphasis on local food production for local consumption as being rooted in a notion of interdependence where a "focus on local, community development in which the interests of families, friends and neighbours is

extremely different than a neoliberal vision of a globally integrated world composed of rational, autonomous, self-interested individuals" (Schanbacher 2010, 55).

Food Sovereignty as a framing device for policy-making

Pimbert (2008) situates the search for Food Sovereignty within a wider affirmation of the right to self-determination and endogenous development. In his view Food Sovereignty pursues three types of objective:

- "Equity: securing the rights of people and communities, including their fundamental human right to food; affirming and celebrating cultural diversity; enhancing social and economic benefits; and combating inequalities, such as the ones responsible for poverty, gender discrimination and exclusion.
- Sustainability: seeking human activities and resource use patterns compatible with ecological sustainability.
- Direct democracy: empowering civil society in decision-making, and democratising government institutions, structures and markets" (Pimbert 2008, 50-51).

For Patel (2009) Food Sovereignty is a "big tent" policy: whereas disparate groups can identify themselves under a particular program, the program's core lays upon a consistent set of ideas. In Patel's view, the core of Food Sovereignty lies in challenging deep inequalities of power and a radical egalitarianism in the call for a multi-faceted series of democratic attachments. Food Sovereignty claims to address the need for social change so that the capacity to shape food policy can be exercised at all appropriate level, and for everyone to be able to substantively engage with those policies. Thus, necessary precursors to Food Sovereignty are the eradication of sexism, patriarchy, racism and class power (Patel 2009, 663).

Carney (2012) uncovers a series of shift necessary for yielding from a Food Security to a Food Sovereignty approach. These shifts include needs-based to rights-based rhetoric; top-down to bottom-up streams of power; technocratic to participatory planning contexts; and compartmentalized to integrated food and agricultural policies. She also points out that because both terms "are couched in particular histories and represent different value-based assumptions about the human relationship to food… there is considerably much at stake when deciding which discursive framework is best suited to the needs of a particular community or organization" (Carney 2012, 1-17).

In their extensive review of the concept's evolution, Windfuhr and Jonsén (2005) identify the following six concrete proposals to achieve Food Sovereignty:

- A Code of Conduct on the human Right to Food to govern the activities of those involved in achieving the right to food, including national and international institutions as well as private actors, such as transnational corporations
- An International Convention on Food Sovereignty that replaces the current Agreement on Agriculture (AoA) and relevant clauses from other WTO agreements
- A World Commission on Sustainable Agriculture and Food Sovereignty is established to undertake a comprehensive assessment of the impacts of trade liberalization on Food Sovereignty and security, and develop proposals for change
- A reformed and strengthened United Nations (UN), active and committed to protecting the fundamental rights of all peoples, as being the appropriate forum to develop and negotiate rules for sustainable production and fair trade

- An independent dispute settlement mechanism integrated within an International Court of Justice, especially to prevent dumping and, for example, Genetically Modified Organisms (GMO) in food aid
- An international, legally binding treaty that defines the rights of smallholder farmers to the assets, resources, and legal protections they need to be able to exercise their right to produce (Windfuhr and Jonsén J. 2005).

Food Sovereignty and rights-claims

The language of Food Sovereignty inserts itself into international discourse by making claims on rights and democracy, the cornerstones of liberal governance, where demanding a space of Food Sovereignty is to demand specific arrangements to govern territory and space (Patel 2009, 663). He explores what conceptual and legal structures might guarantee the rights that constitute Food Sovereignty and ultimately argues that it is insufficient to consider only these structures and that it is vital to consider the substantive policies, process, and politics of which Food Sovereignty is made of to conceptualize the multiple spatial layers of right inherent to a Food Sovereignty approach to agro-food policy (Patel 2009, 663).

Windfuhr and Jonsén (2005) point out that whereas Food Sovereignty covers issues that are already recognized in international law (such as the right to food), it also employ rights-based language so far not part of international law, such as the right to produce and the right to Food Sovereignty. As a framework, Food Sovereignty covers the rights of individuals and the rights of all people at the same time. They call for more precision in the use of rights-based language because the political expansion of the rights-based language contains the risks for those rights as being seen more as political demands (Windfuhr and Jonsén J. 2005).

Food Sovereignty and agrarian citizenship

Wittman's (2009) premise is that as an intensive and integral nexus between society and nature, agriculture has played a pivotal role in social and historical change. Building on Marx's socio-ecological metabolism concept, she posits that the socio-ecological metabolism in agriculture is maintained over time and space through nutrient recycling but that this theoretically sustainable metabolic relationship broke down with the commoditisation of nature and the creation of labour markets. She points to the transformation of agriculture from a metabolic activity linking society and nature to a commodity-based motor of capitalist expansion as the primary driver of a metabolic rift. She points to contemporary peasant movement associated with LVC that are engaged with the principles of Food Sovereignty and agrarian citizenship as an example of the potential to enact a socio-ecological countermovement that fosters a new cycle of agro-ecological transformation. Wittman understands agrarian citizenship as being based on issues of rural political representation and on a relationship with the socio-ecological metabolism between society and nature. The project of agrarian citizenship emerged from class contradictions arising from dialectical struggles for political representation and access to rural resources both within and beyond national borders, and amidst accelerating ecological change (Wittman 2009, 805).

Food Sovereignty and global governance mechanisms

The Food Sovereignty concept is increasingly internationally recognized (Windfuhr and Jonsén J. 2005; Lee 2012, 1). Lee (2012) finds that new opportunities for the Food Sovereignty discourse lie in the FAO process because the FAO has evolved to represent a diversity of approaches. He argues it is this pluralism that presents opportunities for Food Sovereignty. Indeed, as of 1996 the Committee on World Food Security (CFS) as entrusted with monitoring

achievements of the Millennium Development Goals in the area of food. The 2009 CSF reform introduced the Civil Society Mechanism, which facilitates NGO consultation and participation in the CFS (International Food Security and Nutrition Civil Society Mechanism 2012). The International Planning Committee for Food Sovereignty is an international network bringing together NGO's and other organizations representing farmers, fisherfolk and small and medium scale farmers, agricultural workers and indigenous peoples facilitating coordinated involvement in the Civil Society Mechanism and general dialogue with the FAO on Food Sovereignty (International Planning Committee for Food Sovereignty 2009).

Food Sovereignty and agroecology

The science of agroecology is defined as the application of ecological concepts and principles to the design and management of sustainable food systems (Gliessman 2007; Altieri 2009). Agoecosystem processes that are optimized through the use of agroecological technologies include nutrient cycling and the accumulation of organic matter, soil biological activity, natural control mechanisms (such as disease suppression, biocontrol of insects and weed interference), resource conservation and regeneration (of soil, water, germplasm and other) and a general enhancement of agrobiodiversity and synergisms between components of the ecosystem (Altieri 2002, 1-24).

Altieri (2009) argues that the agroecosystems of small traditional farms can be optimized through agroecological approaches and form the basis of Food Sovereignty. This view is also reflected in the sixth principle of Food Sovereignty, "Works with Nature" where agroecology is a central pillar to achieving sustainable peasant agriculture. Food Sovereignty and agroecology proponents argue that small farms using agroecological approaches are more

productive than large farms if total output is considered rather than yield from a single crop (Altieri 2009; Peter Rosset 2000, 77-82), that they are less vulnerable to climate change and play a crucial role in maintaining agrobiodiversity (Altieri 2009). Altieri also argues that because polycultures reduce losses to weeds and diseases while making for more efficient use of available resources such as water, light and nutrients, small farms are more profitable. In his view managing fewer resources more intensively means that small farmers make more profit per unit of output, thus making more total profits even when the production of each commodity is less (Altieri 2009).

The notion that adopting agroecological practices can result in higher productivity is supported by the work of Pimentel et al. (2005). In a 30 year farming trial comparing various organic and conventional agricultural practices undertaken at the Rodale Institute farm trials, Pimentel et al. (2005) have found that depending on factors such as the crop, soil, and weather conditions, the production of organically managed fields can equate those of conventional agriculture (Pimentel et al. 2005, 573). On the same test site, Lotter et al. (2003) found that organic systems performed better yield-wise than conventional in the event of a drought followed by excessive rainfall. They propose that the higher water holding capacity of organic soils is a mechanism for better yields in droughts (Lotter, Seidel, and Liebhardt 2003, 1). Scialabba and Muller-Lindenlauf (2010) argue that in developing countries, organic agriculture achieves equal or higher yields than conventional. Also relevant to developing countries is the fact that organic practices offer alternatives to energy-intensive production inputs upon which conventional systems depend to achieve a certain yield. With rising energy prices, these inputs may be less affordable for the rural poor, which makes the prospect of maintaining yields without energy-intensive inputs very relevant to food security (Scialabba and Muller-Lindenlauf 2010, 158).

In a study modelling the use of fossil energy in organic and conventional farming models, Dalgaard et al. (2001) found that both energy use and yield were lower in the organic model. Their interpretation of their findings is that conventional crop production had the highest energy production, whereas organic crop production had the highest energy efficiency (Dalgaard, Halberg, and Porter , 51). Azadi et al. (2011) explore the main potentials of organic agricultural practices. They found that in the short term, organic farming produces lower yields but that in the long term, it is possible that these practices could achieve better yields than conventional farming, especially when considering broader threats to food security (including climate change, pests, etc). They argue that if a transition from organic to conventional were to occur it should be implemented gradually so as not to affect the food supply (Azadi et al. 2011, 92). Pacini et al. (2003) argue that although organic farming systems have a better environmental performance than conventional, it does not mean that they are sustainable when compared to the intrinsic carrying capacity and resilience of a given ecosystem (Pacini et al. 2003, 273).

Altieri (2009) points out that the potential and spread of agroecological innovations are dependent upon several factors. In his view, to be successful agroecological strategies must deliberately target the poor, create employment, provide access to local inputs and local markets, directly involve farmers in research and in the process of technological innovation and dissemination, enhance farmer ecological literary so as to lay the foundation for empowerment and innovation, develop equitable market opportunities and increase investment and research in agroecology. As a social movement, Food Sovereignty and the work of LVC play a crucial role in the agroecological transformation of agriculture, which cannot be achieved without comparable changes in the social,

political, cultural and economic arenas that shape agriculture (Altieri 2009). Lee (2012) understands agroecology as both a natural and a political science of the particular because it attempts to work with social and biophysical conditions (Lee 2012, 1).

Food Sovereignty and knowledge

Schanbacher (2010) draws attention to how in the contemporary food system consumption is divorced from the production process. He emphasizes that Food Sovereignty advances a radically different perspective on cooperation and that people of the Food Sovereignty movement are fighting for an alternative conception of the human being. To illustrate his thesis, Schanbacher describes how the Slow Food Movement centres on the concept of consumers being or becoming "co-producers", consumers who take an active interest in food producers, their practices and the challenges they face. Schanbacher points out that co-producers have a greater stake in the production process and thus may reinvision our relationship to the foods we consume, a relationship thus leading to the co-construction of knowledge (Schanbacher 2010)[5].

Pimbert (2006) emphasizes that the endogenous development of locally controlled food systems requires transforming our ways of knowing by yielding more decision-making powers to communities, promoting the democratization of research as well as diverse forms of co-inquiry, and expanding horizontal networks for autonomous learning and action (Pimbert 2006).

[5] The Slow Food Food movement has also been accused of romanticism and elitism. For an example of this argument, see West and Domingos (2011) on the Serpa Velho cheese Slow Food project in Portugal (West and Domingos 2011, 120-143).

Other orientations to Food Sovereignty

Blouin et al. (2009) demonstrate that there exists two main orientations on Food Sovereignty: (1) Sustainable Local Development, which is a bottom-up approach rooted in empowering a peasant agriculture as intended by the Via Campesina, and (2), Autonomous Political Decisions, which is a top-down approach enabling governing bodies to assert the right of states to determine their degree of food autonomy. In regards to orientation (2), Blouin et al. (2009) observed that over time the Food Sovereignty concept has been adopted and adapted by state governments and other producer organizations to defend the political space of states to create their own food and agricultural policy. Examples of nation states that have included the right to food and Food Sovereignty in legislation include Mali, Ecuador, Venezuela, Bolivia, Senegal, and Nepal (Beauregard 2009). In a state-centric notion of Food Sovereignty, the primary concern is preventing the interference from foreign powers in policy-making processes through international treaty negotiations, human rights conventions, trade agreements and preventing dumping practices. In this context, they argue that Food Sovereignty becomes essentially a top-down state centred model unconcerned with the specific form agriculture takes because it fails to incorporate the objectives of Food Sovereignty as are articulated by the Via Campesina in terms of sustainable farming practices, the protection of the family farm, rural development and social justice (Blouin et al. 2009).

Food Sovereignty: critics, constraints and counter arguments

Windfuhr and Jonsén (2005) identify the following six challenges to the Food Sovereignty framework:

1. The dominant development paradigms of today are built upon political preconditions (i.e. democracy, good governance and no corruption), a macro-economic policy model based on open markets and trade-based food security,

and the current development or social policy agenda driving the Millennium Development Goals. Without being anti-trade, Food Sovereignty aims to restrict trade so as to guarantee that trading conditions are not threatening to smallholder farmers and marginalized communities. The dominant development and trade paradigms and mechanisms (such as the WTO) are seen as fundamentally incompatible with the Food Sovereignty principles.

2. From a global food security perspective, production-oriented arguments point to agricultural policies as having succeeded to increase global food production (as a result of technology, high-yielding varieties, inputs and irrigation). This raises questions regarding the current and future capacity of smallholder farmers, pastoralists and fisherfolk to produce food for a growing global population using agroecological methods, whether a policy based on Food Sovereignty can adequately take into account the future food need of a growing world population, and whether Food Sovereignty policies risk favouring less efficient (in conventional economic terms) producers.
3. The term Food Sovereignty is seen by some as incompatible with globalization and as unable to recognize the need to open up economies and the need for international exchange (of ideas, goods, services, tourism, etc). Other questions involve whether the nation state, which some argue is becoming weaker and weaker as a governance mechanism, can be an adequate agent for policy development.
4. Central to Food Sovereignty is the notion that the revitalization of rural development and rural policies needs to be secured in international policies, but the framework also calls for the decentralization of decision making to local or national levels. Some, including NGOs and social movements, question whether more global governance is desirable, arguing that investing more energy in developing the right international instruments instead of focusing on

sovereignty and improved democracy at national or even local levels would be wiser.

5. Food Sovereignty calls for considerable changes and for the creation of a variety of instruments in the global governance area (including a new convention, treaty, commission and dispute settlement mechanism) but it is unsure whether there is space for these additional and very concrete elements.
6. The Food Sovereignty framework is confused in its use of the term human rights because two different ways of applying the concepts of 'rights' are being mixed up. The human right to food needs to be established separately from the more conceptual form of the word 'right' in a political context because the right to produce food and/or to Food Sovereignty is not internationally recognized. In Windfuhr and Jonsén's view, the political use of the rights terminology should be separated from the legal one because the right to food, an established international instrument, can already be claimed in courts (Windfuhr and Jonsén J. 2005).

Schanbacher posits that instead of simply stating that food is a basic human right, Food Sovereignty should further argue that failing to provide this basic human right is a violation of human rights (Schanbacher 2010). Here the violation of the human right to food is conceived as a negative right in the sense that it is a right to be free from hunger. He also argues that the capabilities approach (which was developed by Martha Nussbaum and Amartya Sen and has inspired the UN Development Index) can serve as a theoretical framework for creating policy to address the demands of agrarian movements, and that it can also be given content by the specific demands of agrarian movements. He concludes his ethical analysis of Food Sovereignty and the ethics of globalization with the proposal that coupling a negative rights/duties approach to a capabilities approach provides

both a theoretical and pragmatic paradigm shift for advancing Food Sovereignty (Schanbacher 2010).

Akram-Lodhi (2012) identifies one limitation to LVC's vision for Food Sovereignty. He argues that it is not clear from LVC whether rural social movements are developing an understanding of how they can reconfigure the social conditions and relations of capitalism, or if they are in fact developing a post-capitalist alternative. To remedy the shortcomings of Via Campesina's vision of Food Sovereignty, Akram-Lodhi articulates a vision for what he calls Agrarian Food Sovereignty. Agrarian Food Sovereignty requires: pro-poor redistributive social coalitions that coalesce around food and farming; the promotion of agroecological principles at the local and global level, in farming and eating; pro-poor redistributive land and agrarian reform that also provide peasant farmers with the tool they need; mobilizing outside and inside the state to reconstruct food as a public good; that food movements unite; and, that states work together and engage with broad coalitions of citizens to discipline the markets in ways that make agroecological agrarian Food Sovereignty work (Akram-Lodhi 2012).

About Food Systems

Food Systems

The "food system" is often defined as the food-related activities including producing, processing, packaging, distributing, retailing and consuming (Pothukuchi and Kaufman 1999, 213-224). However, a broader definition of the term also includes interactions between and within biogeophysical and human environments and food system activities and the outcomes of the activities (Ericksen 2008, 234). Ericksen (2008) argues that a more holistic understanding of the term food system must integrate a description and an analysis of not only the component parts and actors but also the patterns of interactions among these

parts and actors. Ericksen (2008) also identifies the need to treat food systems as multi-scale and level and she stresses that institutions play a key role in mediating between the social and ecological processes and resources because food systems are coupled social and ecological systems. She concludes by emphasizing that food system investigations require integrating across disparate literatures with differing goals and methods (Ericksen 2008, 234).

Food systems are being described as either conventional or alternative according to the model used to undertake various food system activities (producing, processing, packaging, distributing, retailing and consuming). This dialectic has for example been notably explored by:

- Beus and Dunlap (1990) who synthesized six major dimensions of the conventional versus alternative agriculture (production activity) paradigm: 1) Centralization vs. Decentralization, 2) Dependence vs. Independence, 3) Competition vs. Community, 4) Domination of nature vs. Harmony with nature, 5) Specialization vs. Diversity, and 6) Exploitation vs. Restraint (Beus and Dunlap 1990, 590).
- Hinrichs who studied alternative markets (farmer's markets) and alternative to the market (community supported agriculture) (Hinrichs 2000, 295).

Local Food Systems (LFS)

There are various interpretations of the term Local Food Systems (LFS), all of which can be placed within what I call the "LFS spectrum". At one end of the spectrum, LFS is specifically concerned with quantifying the distance travelled by food. The term "Food Miles", which refers to the distance food is transported from producer to consumer (thereby quantifying greenhouse gas emissions) and was popularized in North America with the book "The 100-Mile Diet" by Smith

and MacKinnon (2007) is one example of a notion situated at this extremity of the spectrum (Smith and MacKinnon 2007).

The other end of the spectrum is concerned with applying three-pillar (economic, social and environmental) sustainability principles to all aspects of the food system so that these considerations permeate all layers of international, national, regional and community planning and decision-making processes. A Food System assessment framework is a management tool that can be situated at this end of the spectrum.

There have been various attempts to survey or explore the definitions and meaning of "local" food. In a report prepared for Agriculture and Agri-Food Canada, Chinnakonda and Telford (2007) conduct a literature review of the definitions of "local food" in Europe and North America and find that the meaning of "local" is contested. They identify four main categories of approaches used to delimit "local food": distance-based, time-based, political and administrative boundaries and bioregions (Chinnakonda and Telford 2007). While Chinnakonda and Telford (2007) focus on geographically derived concepts to define LFS, Feagan (2007) uses the term "Local Food Systems" much more loosely. In the article entitled "The place of food: mapping out the 'local' in local food systems" Feagan brings under the LFS umbrella a number of terms including alternative food initiatives, alternative agro-food networks and systems, community food security, civic and democratic agriculture, postproductivism, alternative or shortened food chains, and more. Feagan emphasises the constructed nature of the 'local': while he agrees that determining the local in LFS is contingent on the place (that is the social, ecological, and political circumstances by which it is circumscribed), he calls for the recognition that any

localism is dialectically and relationally tied to a diversity of "locals" around the world (Feagan 2007, 23).

In their review of literature on local food systems and public policy, Local Food System are broadly defined by Blouin et al. (2009) as food systems designed to promote sustainable development rather than being defined primarily by distance travelled. They also identify LFS as an effective mean of achieving Food Sovereignty (Blouin et al. 2009).

Food System Sustainability

The terms Sustainable Community Food Systems (SCFS), Sustainable Food Systems (SFS) and LFS have been used interchangeably by, for example, Feenstra and Kloppenburg et al. (Kloppenburg et al. 2000, 177; Feenstra 2002, 99-106). The Sustainable Agriculture Research and Education Program (SAREP) defines SCFS as "a collaborative network that integrates sustainable food production, processing, distribution, consumption and waste management in order to enhance the environmental, economic and social health of a particular place" (Sustainable Agriculture Research and Education Program 2009[6]).

Through a consultative process with 125 people from the field Kloppenburg et al. (2000) abstracted a set of attributes of a "Sustainable Food System". Participants envisioned SFS's as relational, proximate, diverse, ecologically sustainable, economically sustaining, just/ethical, sacred, knowledgeable/communicative, seasonal/temporal, healthful, participatory, culturally nourishing, and sustainably regulated (Kloppenburg et al. 2000, 177). All of these attributes are encompassed within the LFS spectrum.

[6] Available online at http://www.sarep.ucdavis.edu/sfs/def.

Sumner builds on the notions that a food system is a dynamic and interconnected system, and that sustainability is a set of structures and processes that build the civil commons, to define SFS as involving an interdependent web of activities that build the civil commons with respect to the production, processing, distribution, consumption and disposal of food. In her view, this interpretation of sustainability implies that a SFS must be anchored within the public domain and that it must follow natural cycles and closed loops to achieve positive synergies. Overall, the nodes in a sustainable food systems would be governed by civil commons regulation geared toward ensuring that everyone is fed, within the ecological limits of the planet (Sumner 2012, 326).

According to Blay-Palmer, the SFS notion stems from the desire to facilitate regenerative and transformative food system pathways as opposed to palliative systems which are characterized by structural weaknesses that precipitate food crises through mechanisms involving corporate concentration and consolidation throughout the food chain, the scientification of food, intensified market liberalization, and speculative investors in food commodity markets (Blay-Palmer, Turner, and Kornelsen 2012, 337). She also posits that for food to be sustainable, it must be nourishing, healthy, fresh, pleasurable, accessible and culturally and spiritually appropriate. Blay-Palmer's understands SFS as resting on the three interconnected pillars of economy, environment, and society. The SFS policy approach is founded upon food democracy, Food Sovereignty, a public ethic of care, multifunctionality and subsidiarity (Blay-Palmer, Turner, and Kornelsen 2012, 337).

SFS and LFS: Critics, constraints and counter arguments

Born and Purcell (2006) argue that food system research makes the ill-founded assumption that local food is inherently more socially just and ecologically sustainable. They refer to this as "the local trap". In their view local food systems are not more likely to be more sustainable or just. Rather, it is the content of an agenda, and not its socially constructed scale, that determines whether outcomes will be just and/or sustainable (Born and Purcell 2006, 195). On a similar note, Hinrichs (2003) points out that desirable social, environmental and economic outcomes do not always map out neatly onto the socially constructed notion of "local" and that there exists potential tension between defensiveness and diversity in food system localization (Hinrichs 2003, 233).

In their book "The Locavore's Dilemma: In praise of the 10,000 mile diet" Desrochers and Shimizu argue that widely adopting locavorism can only result in higher costs and increased poverty, greater food insecurity, less food safety, and more environmental damage. They call for a global food system characterized by unrestricted free trade and the absence of agricultural subsidies as a means to deliver even lower food prices and promote a more environmentally sustainable food system (Desrochers and Shimizu 2012).

In her blog, Lenore Newman, the Canada Research Chair in Food Security and the Environment at the University of the Fraser Valley, highlights key misconceptions dominating the book by Desrochers and Shimizu. Newman argues that Desrochers and Shimizu have constructed a "locavore straw man" bearing little resemblance to the actual local food movement, based their book on the false assumption that locavores want to return agriculture to "some romantic past" and have failed to adequately consider the question of agricultural subsidies, the actions of lobbyists and the interference of governments to expand export

agriculture and support monocultures. She also points to how the authors rely on Bastiat's broken window fallacy (how opportunity costs and unintended consequences affect economic activities in unseen ways) to support their assertions against local food while failing to see the same argument works against their own thesis (Newman 2012).

About Food System Planning

Food system planning: an emerging field

Anderson and Cook (1998) posited that Community Food Security (CFS) themes (food systems that are decentralized, environmentally-sound, equitable, democratic and supportive of collective needs) had yet to be theoretically and practically linked to one another. They argued that to be effective as a guide for policy and action, CFS needed to be clearly articulated in a theoretical framework which should show how CFS relates to individual, household, and national food security, point to the best indicators of CFS or its lack and clarify the determinants of CFS and the stages of movement toward CFS. They called for the development of a theoretical base that would allow researchers to develop valid and reliable measures, weigh alternative options to create strategic plans, and help establish common ground with potential partners by connecting anti-hunger work, sustainable agriculture, and community development (Anderson and Cook 1998, 141-150).

Pothukuchi and Kaufman (1999) were among the firsts to point to the absence of a concern for food systems from most planning practice, research and education. Their early work argued that since the food system impacts the urban quality of life, it is critical to identify potential and existing local government institutions that could contribute to developing a more comprehensive understanding of food systems (Pothukuchi and Kaufman 1999, 213-224). Later work by Pothukuchi

and Kaufman presented five approaches by which planners could strengthen food systems and engage in "food system planning". These include 1) the compilation of data on the community food system, 2) the analyses of connections between food and other planning concerns, 3) the assessment of the impact of current planning on the local food system, 4) the integration of food security into community goals, and 5) the education of future planners regarding food system issues (Pothukuchi and Kaufman 2000, 113-124).

Feenstra (2002) drew lessons from recent development in, and the maintenance of, community-driven initiatives promoting an alternative and more sustainable food system. She argued that the creation and protection of social, political, intellectual and economic spaces are necessary to the germination of sustainable community food system projects and identified three themes underlying the four spaces: Public participation, partnerships and principles (Feenstra 2002, 99-106).

Recent research by Soma and Wakefield (2011) interviewing a sample of self-identified "food system planners" suggests that the importance of integrating food system considerations into community planning is increasingly recognized within the planning profession (Soma and Wakefield 2011, 53-64). It also appears that specific projects or initiatives related to the emergence of food system planning are now being studied. For example, Horst et al. and Levkoe and Wakefield have studied socio-physical infrastructures such as Food Hubs and Community Food Centres (Horst et al. 2011, 209-225; Levkoe and Wakefield 2011, 249). Butler (2012) has investigated municipal ordinances pertaining to the resurgence of livestock in urban contexts (Butler 2012, 1-23). Food Policy Councils, which aim to develop SCFS through policy, facilitation, networking, education and interaction between communities and governments, have been extensively studied by Schiff (2008) who interviewed 13 Food Policy Councils (FPC) in the US and

Canada to examine their role in developing SCFS. Her research indicated that FPC's tend to be more focused on program development than on policy work (Schiff 2008, 206-228).

On a more theoretical level, emerging concepts framing the development of food system planning in Canada include Municipally-Enabled Agriculture (MEA) and Agricultural Urbanism. MEA refers to the full integration of the agro-food system within the planning, design, function, economy and community of cities and vice-versa (Condon et al. 2010, 104). Agricultural Urbanism (AU) is defined by de la Salle et al. as a planning, policy, and design framework for developing a wide-range of sustainable food and agriculture elements into multiple community scales whose objective is to refocus economic development, community identity, and urban planning and design on all aspects of food and agriculture systems (de la Salle and Holland 2010). AU is referred to by Mullinix et al. (2008) as a mechanism to connect urbanites to their environment and to their agro-food system, thus reducing their dependence on an ecologically unsound and vulnerable global scale agric-food system and creating a significant regional economic sector (Mullinix et al. 2008).

Food System Assessments

Freedgood et al. (2011) show that a growing body of food assessment tools is being developed to better understand the complexity of food systems and to identify challenges and opportunities and to evaluate the efficacy of food system planning. They identify eight emerging assessment tools: (1) Local or Regional Foodshed Assessments, (2) Comprehensive Food System Assessment, (3) Community Food Security Assessments, (4) Community Food Asset Mapping, (5) Food Desert Assessment, (6) Land Inventory Food Assessment, (7) Local Food Economy Assessment and (8), Food Industry Assessment. Freedgood et

al.'s research provides several U.S. based-example for each type of assessment (Freedgood, Pierce-Quinonez, and Meter 2011, 83-104). The two assessment tools that appear to be most widely used are Food Desert Assessments and Foodshed Assessments. Food Desert assessments aim to identify urban areas in which residents have limited access to retail food outlets and other sources of healthy food (Freedgood, Pierce-Quinonez, and Meter 2011, 83-104). In Canada, Food Desert Assessments have been conducted in Montréal (Apparicio, Cloutier, and Shearmur 2007, 1-13), Edmonton (Smoyer-Tomic, Spence, and Amrhein 2006, 307-326) and London (Larsen and Gilliland 2008, 1-16). A study examining the impact of the establishment farmer's market in a food desert found that three years after the establishment of this farmer's market grocery prices had decreased by almost 12% (Larsen and Gilliland 2009, 1158-1162).

Based on the watershed metaphor, the notion of a foodshed as a conceptual and methodological unit of analysis that provides a frame for action as well as thought was introduced by Kloppenburg et al. (Kloppenburg, Hendrickson, and Stevenson 1996, 33-42). Foodshed analyses identify the geography of existing (or future) food sources for a given region, and/or trace the movement of food from where it is produced (the farm) to where it is consumed (urban centres) (Freedgood, Pierce-Quinonez, and Meter 2011, 83-104). Feagan points to the foodshed concept as a tool for understanding the flow of food and a framework for envisioning alternative food systems. He argues that foodsheds reconstruct the geography of food systems by compelling social and political decisions on food to be orientated within specific delineated spaces (Feagan 2007, 23). In the U.S. foodshed assessments have been undertaken, amongst others, in New York State (Peters et al. , 72-84), Philadelphia (Kremer and Schreuder 2012, 1-21) and the Willamette Valley region (Washington State) (Giombolini et al. 2010, 247-262).

Assessment tools targeting more specific aspects of the food system also exist. For example, the Sustainability Assessment of Farming and the Environment (SAFE) framework developed by Cauwenbergh et al. (2006) stems from the field of agroecology. SAFE is a framework of principles, criteria and indicators (PC&I) for sustainability assessment of agricultural systems designed for three spatial levels: the parcel level, the farm level and the landscape/administrative unit level (Van Cauwenbergh et al. 2007, 229–242).

Ken Meter (2011) identifies the following 17 reasons to conduct food system assessments:

1. Establishing a baseline in order to measure progress over time.
2. Helping to create a vision for a food system.
3. Bringing stakeholders together to achieve a clearly articulated food system vision.
4. Promoting an understanding that considers the totality of the system.
5. Assuring stakeholders that all major dynamics are in view.
6. Identifying central forces, pressure points and contradictions so that strategic priorities can be set.
7. Understanding how the system may resist change.
8. Estimating how actions in one arena can impact another.
9. Fostering private/public collaboration to obtain better outcomes and contribute to democracy.
10. Building capacities of residents to engage with food systems.
11. Strengthening social and cultural connections amongst food stakeholders.
12. Understand prevailing economic conditions affecting the food system and potential impacts of food system activity.
13. Gaining clarity about assumptions.

14. Developing a more sophisticated approach in building systems framework that reflects actual conditions.
15. Capturing insights into emergence and effectively responding to changing conditions.
16. Creating transformative insights including key "levers" analysis.
17. Giving a voice to the marginalized (Meter 2011, 7-9).

Conclusion

This literature review considered the critical points of current knowledge relating to Food Sovereignty, food systems and food system planning, yet it cannot pretend to having conducted a comprehensive examination of all the contributions made to these particular topics. Nonetheless, these findings provide guidance in exploring how Food Sovereignty aspirations are reflected in local governance planning processes, project development and community led initiatives.

The empowerment of communities emerged as a central theme of Food Sovereignty. The nature of Food Sovereignty as a counter ideology to the dominant global agro-industrial system in part stems from how Food Sovereignty places communities at the heart of food system change. This notion is supported by how Food Sovereignty emphasizes social connections as opportunities to reclaim control of the food system (Wittman, Desmarais, and Wiebe 2010) and is situated within a wider affirmation of the right to self-determination and endogenous development (Pimbert 2008), which also requires transforming our ways of knowing by yielding more decision-making powers to communities (Pimbert 2006). It can also be related to Food Sovereignty's emphasis on local food production for local consumption as being rooted in a notion of interdependence at the community level (Schanbacher 2010) and how a series of shift to yield from a Food Security to a Food Sovereignty approach notably

includes top-down to bottom-up streams of power and technocratic to participatory planning contexts (Carney 2012, 1-17).

The literature review identified various interpretations of the term food systems while pointing to LFS and SFS as two prominent and overlapping analytical framework of food system planning. The Food Sovereignty concept and Food Sovereignty themes are present in some interpretations of "alternative" food system, "local food system", and "sustainable food system". Beus and Dunlap found that the alternative agriculture paradigm included a focus on decentralization, independence, community, harmony with nature, diversity, and restraint (Beus and Dunlap 1990, 590), all of which are themes present in the six pillars of Food Sovereignty (see Appendix I). For Blouin et al., LFS are a means to achieve Food Sovereignty (Blouin et al. 2009). Sumner understands SFS as involving an interdependent web of activities that build the civil commons: the argument that SFS's must be anchored within the public domain is another Food Sovereignty theme (Sumner 2012, 326). Blay-Palmer sees the SFS policy approach as being founded upon food democracy, Food Sovereignty, a public ethic of care, multifunctionality and subsidiarity (Blay-Palmer, Turner, and Kornelsen 2012, 337).

Food Sovereignty also emerged as a multi-faceted concept whose discourse encompasses a wide spectrum of ideologies nonetheless carried by a shared, consistent set of ideas (Patel 2009, 663). In theory (though not necessarily in practice), the scope of Food Sovereignty as understood by LVC is more specific and consistent than that of LFS and SFS. The literature review revealed a wide spectrum in the interpretation of LFS and SFS (for examples see Blouin et al. 2009; Smith and MacKinnon 2007; Chinnakonda and Telford 2007; Feagan 2007, 23; Kloppenburg et al. 2000, 177; Feenstra 2002, 99-106; Sumner 2012, 326;

Blay-Palmer, Turner, and Kornelsen 2012, 337; Born and Purcell 2006, 195; Hinrichs 2003, 23).

The literature review showed that Food Sovereignty places communities at the centre of food system change. This suggests it is a conceptual framework potentially suitable to both the practice and study of food system planning at the local governance level. For example, the Food Sovereignty concept may help frame the development and the interpretation of, and the response to, the food system assessment tools identified by Freedgood et al (Freedgood, Pierce-Quinonez, and Meter 2011, 83-104). The Food Sovereignty framework could feed into emerging local food system planning concepts such as Municipally Enabled Agriculture as defined by Condon et al. (Condon et al. 2010, 104) and Agricultural Urbanism as defined by Mullinix and de la Salle (de la Salle and Holland 2010; Mullinix et al. 2008). The importance of integrating food system considerations into community planning is increasingly recognized within the planning profession (Soma and Wakefield 2011, 53-64), which may be an opportunity to introduce or further integrate Food Sovereignty ideas to local planning and governance processes.

This begs the question: Does the integration of food sovereignty considerations to planning and governance processes provide an alternative approach to framing, envisioning and implementing food system change driven by local governments? To my knowledge no research has explored or documented the presence of Food Sovereignty principles in community food system planning. I believe the research question pertaining to whether and how this is occurring has yet to be addressed. This research question is at the heart of my analysis: as such, it guides my exploration of Food Sovereignty Practice in Canada (Chapter Two), and how I use case study findings to develop Food Sovereignty indicators (Chapters Three

and Four).

Chapter Two: Food Sovereignty Practice in Canada

This chapter describes the legislative, political and socio-economic context framing the capacity of local government to affect change by engaging in Food Sovereignty Planning. The chapter: (1) situates local governments in relation to federal and provincial legislation; (2) explores how Canadian municipalities are already engaged in food system planning; (3) summarizes the federal, provincial and local policies that impact Food Sovereignty and draws attention to the potential tensions between some of them; (4) introduces Canadian organizations working towards Food Sovereignty; (5) identifies salient features of Canadian food and agriculture to highlight key challenges, barriers and opportunities to implementing Food Sovereignty in Canada.

Situating local governments in relation to federal and provincial legislative jurisdiction

Section 92(8) of the Constitution Act of 1867 states that "In each Province the Legislature may exclusively make Laws in relation to…Municipal Institutions in the Province". This means that municipalities are under provincial jurisdiction and that although municipal governments have the autonomy to develop their own by-laws, municipal by-laws are subject to change by the provincial government. Municipal governments typically provide services that relate to community safety (i.e. policing and fire station), transportation (i.e. roads, buses, or inner-city train services), education (i.e. school board funding), planning and development (i.e. zoning by-laws for commercial, industrial and residential areas), finances (i.e. property taxes) and utilities (i.e. wastewater treatment and municipal parks). Municipal activities are funded for the most part by property taxes, the sale of goods and services and tax transfers (Tindal and Tindal 2009). Individual provinces permit municipalities to use a variety of regulatory tools to guide social

and economic activity on their territory. Local governments therefore have the legislative capacity to address societal issues and can play a key role in helping to address issues of federal relevancy. For example, municipal leadership has contributed to substantial and cost-effective reductions of Greenhouse Gas (GHG) emissions and it is expected it will continue to do so in years to come (Federation of Canadian Municipalities and EnviroEconomics 2009). While Canadian local governments can help improve the sustainability of the food system from a local, regional, national and international perspective, ultimately federal and provincial legislation has precedence over local policy.

Canadian municipalities and food system planning

Municipal food policy entrepreneurs

Food system planning at the municipal level is a relatively new phenomenon in Canada where most food system issues have traditionally been interpreted to be provincial and federal matters under the Canadian Constitution. The 2010 Sustainable Food Systems Survey conducted by the Federation of Canadian Municipalities (FCM) revealed that the majority of surveyed municipalities had integrated food system considerations into current or future planning (Federation of Canadian Municipalities 2012). However, the survey did not investigate the processes that shape this integration. In June 2013, the Toronto Food Policy Council, the Vancouver Food Policy Council and the Canadian Agri-Food Policy Institute published the report "Municipal food policy entrepreneurs: A preliminary analysis of how Canadian cities and regional districts are involved in food system change" (MacRae and Donahue 2013). The report undertook a cross-Canada survey and found that 64 local and regional municipalities are engaged in food system planning through a mix of municipal policies, programs and civil-society interventions. It explores how municipalities are engaged in "food policy entrepreneurship" (in reference to how municipalities do not have a long history

of this work), which involves applying food system thinking in the municipal and regional context. Food system thinking is seen as helping municipalities achieve their goals through food policy (which can be legislative, regulatory or visionary) and program development. In considering motivation factors this research noticed that municipalities were not undertaking food policy work to feed themselves (such opportunities are limited) but rather to shift the dynamics amongst food system actors to improve environmental sustainability, health promotion and economic development (MacRae and Donahue 2013). Other reasons for which municipalities are directly or indirectly engaging in food system work include municipalities being historically more responsive to the needs of their citizenry and the level of governance closest to the community. The municipal movement into food is also seen as part of a reaction to the loss of national powers to global processes (MacRae and Donahue 2013). Reproduced from the report Municipal Food Policy Entrepreneurs, Figure 1 shows links between core municipal activities and food system actions and people.

Figure 1. Links between municipal activities and food system actions and people (reproduced from the report Municipal Food Policy Entrepreneurs, available at http://capi-icpa.ca/pdfs/2013/Municipal_Food_Policy_Entrepreneurs_Final_Report.pdf)

The paper identified six categories of municipal food system activity according to their level of public sector involvement (with the first category showing the highest level of municipal support): 1) Municipality-driven food policy initiatives; 2) Hybrid model with direct links to government, 3) Hybrid model with indirect

links to government; 4) Food policy organization linked to government through a secondary agency; 5) Civil society organization with limited government funding and participation; 6) Civil society organization with no direct government involvement. The diversity of the 64 food policy initiatives associated to these six categories is said to be a function of local political and organizational conditions, including the scale and geography of the region and the current realities of poverty and food system function. This research also found that successful food policy initiatives:

- Bring together people who don't normally spend time with each other.
- Conduct a food system assessment or develop a food charter based on an informal assessment.
- Spend time getting to know the local food system, but have a first success to build credibility
- Understand the needs and priorities of host agencies
- Gradually strengthen structural connections to municipal government.
- Link food to existing reports and policies on related themes.
- Maintain perceptions of legitimacy, feasibility, and support with all political parties and the general public.
- Once initiatives have some local success, move on to addressing provincial and federal issues, especially those that have impacts on the local food scene. (MacRae and Donahue 2013)

Four trending processes

My research identified four main trending processes assisting Canadian local governments in developing food-related policies and initiatives: The formation of Food Policy Councils (FPC's), the development and adoption of Food Charters, the integration of sustainable food system considerations to community plans and

strategies, and the development and implementation of community-based food system assessments.

FPCs are defined by the North American Community Food Security Coalition as entities that bring together stakeholders from diverse food-related sectors to examine how the food system and develop recommendations to improve it (Community Food Security Coalition 2011). While FPCs may take many forms, they are either created under orders, ordinances, and mandates from governments or developed as non-profit or non-governmental organizations. They act as advisory bodies in both cases. Although the degree to which FPCs are policy-oriented or program-oriented varies greatly, FPCs usually play an important role as educators, networkers and facilitators in sustainable food system work (Schiff 2008, 206-228). An Internet scan revealed the existence of Canadian FPCs in Vancouver, Winnipeg, Calgary, Kamloops, Durham, Waterloo, Toronto, the Central Okanagan region and the provinces of Nova Scotia and Alberta. Although the formation of the Vancouver FPC was mandated by the Vancouver City Council, the Toronto FPC is the only food policy council in Canada and in the United States that is part of a city department as opposed to serving as an external advisory body (Wekerle 2004, 378-386).

Food Charters are non-binding declarations of principles and vision that position food in relation to governing bodies. They can be articulated through different framing devices and the scope of a Food Charter can be limited to a specific community. For example, the Toronto Food Charter adopted by the Toronto City Council in 2000 is primarily founded on the food security principle and the synergistic nature of food:
"…The City of Toronto supports our national commitment to food security, and the following beliefs:

- Every Toronto resident should have access to an adequate supply of nutritious, affordable and culturally appropriate food.
- Food security contributes to the health and well being of residents while reducing their need for medical care.
- Food is central to Toronto's economy, and the commitment to food security can strengthen the food sector's growth and development.
- Food brings people together in celebrations of community and diversity and is an important part of the city's culture" (Toronto City Council 2001[7]).

Municipalities can also sign on to an existing charter. For example, the Manitoba Food Charter was drafted in 2006 by the Food Secure Manitoba[8] coalition. Signatories to the MFC have included both community organizations and local governments. The following quote shows that the Manitoba Food Charter draws from Food Sovereignty related themes while being grounded in the socio-economical context of the province:

"A just and sustainable food system in Manitoba means:

- Farmers, fishers, harvesters, processors and distributors can generate adequate incomes and use ecologically sustainable practices.
- Respect for the traditional hunting, fishing, trapping, gathering, and conservation practices of First Nations, Inuit and Métis peoples within sustainable limits;
- A sustainable balance between fair international agricultural trade and diverse vibrant production for the local market;
- Healthy relationships between producers and consumers in urban, rural and northern Manitoba communities;

[7] Available online at http://www.toronto.ca/food_hunger/pdf/food_charter.pdf
[8] Since then the coalition has evolved in an organization called Food Matters.

- Province-wide availability of a variety of nutritious and affordable food through accessible retail outlets and food service operations and the economic means to obtain sufficient daily food for health and dignity;
- Well grounded confidence in the quality and safety of our food; and
- Easy access to understandable accurate information about nutrition, food composition, the ways food is grown, preserved, processed, purchased, and cooked, and how to minimize waste (Food Matters Manitoba 2006[9]).”

Official Community Plans (OCP) or Regional Official Plans (ROPs) are comprehensive plans created by municipalities or regions to articulate a vision or set community priorities so as to guide and dictate policy. Some Canadian municipalities have reviewed their official plans to include food system provisions. Another approach to officially integrating food system considerations has been the development of municipal, district or county-based strategies around food and agriculture. The framing devices (i.e. food security, food system, comprehensive food policy and agricultural self-reliance) for these strategies vary according to different local governments and reflect to some degree the socio-economical features of the community.

There are several examples of North American food system assessments frameworks, all of which have differing features (such as the methodology and the indicator selection criteria) and scope (such as the geographical scale or political entity targeted). This thesis is primarily concerned with food system assessment frameworks that focus on the local level, such as regional or city-

[9] Available online at http://foodmattersmanitoba.ca/sites/default/files/Final%20English%20Manitoba%20Food%20Charter.pdf

based food system assessments. In Canada both Vancouver and Calgary have conducted city-based food system assessments. The 2005 Vancouver Food System Assessment is divided into four sections. Section One contextualizes Vancouver's food system. Section Two conducts an assessment of food security in Vancouver by examining the availability, accessibility and acceptability of food provided through the charitable, community and retail food sectors. Section Three identifies opportunities for a food-related social economy in Vancouver and section four provides recommendations to inform and support the work of the Vancouver Food Policy Council and other agencies engaged in food-related work in the City (Barbolet et al. 2005). Created in conjunction with the "imagineCALGARY Plan For Long Range Urban Sustainability", the vision of the Calgary Food System assessment is "to create a sustainable and resilient food system for the Calgary region so that every Calgarian has access to local, healthy and environmentally friendly food" (The Calgary Food Committee, Serecon Management Consulting Inc., and Altus Group 2012[10]). Six sustainable food system principles (Local, Secure supply, Environmentally sustainable, Healthy, Accessible and Community Development) serve as the basis for the elaboration of specific percentage-based and time-bound targets. The assessment section profiles Calgary's food system and assesses the current state of the food system by using indicators categorized under six food system elements: production, processing, distribution, access, consumption and food waste recovery. Strategies and actions are elaborated according to seven key points of interventions: Regulations, Legislation and Advocacy; Planning and Land Use; Logistics and Transportation; Environment; Economic Development; Community Programs; and Education

[10] Available from http://www.calgary.ca/CA/cmo/Documents/CalgaryEATS!%20FULL%20Food%20System%20Assessment%20%20Action%20Plan%20for%20Calgary%20May2012.pdf

Programs. (The Calgary Food Committee, Serecon Management Consulting Inc., and Altus Group 2012)

Currently under development "The Food Counts Project: a Sustainable Food System (SFS) Report Card for Canada" is a food system assessment framework noteworthy for its intention to capture the state of the food system at both the local and national level. The Food Counts Project aims to measure the sustainability of food systems in Canada and Canadian communities. Phase one involves a top-down reporting strategy bringing together a range of 60 disconnected indicators grouped under three dimensions. The socio-communal dimension includes data on population characteristics, food access and human heath and wellbeing. The economic dimension is composed of indicators that address the amount of redundant food trade, farmer income and the average cost of a food basket across communities. The ecological dimension relates to overall ecological health, including the number of farms, whether they are owned/rented, the GHG emission resulting from agricultural inputs and its GHG sink capacity, herbicide application, and water usage for irrigation. Phase two involves a bottom-up approach where case studies of unique community projects show an evolving picture of community-based food system sustainability (Blay-Palmer, Turner, and Kornelsen 2012, 337).

Three levels of intervention

My research has identified three different levels at which local governments can intervene to influence the food system: household, public and private. One example of how municipalities can regulate elements of food production that occur within the household is the regulation around the keeping of livestock in an urban context. A growing number of Canadian municipalities have modified existing legislation to allow the keeping of livestock in the city. The poster child

of this movement is the backyard chicken, also known as the "urban hen". Vancouver was one of the first cities to allow the keeping of chickens in urban areas. In June 2010, guidelines were enacted as amendments to the Animal Control Bylaw and Zoning and Development Bylaw whereby the keeping of up to 4 hens per lot was allowed and specific coop requirements for keeping backyard chickens were provided. The City of Guelph also enacted a by-law to regulate the keeping of ducks, geese, poultry and pigeons in the city[11]. Interestingly, although the City of Toronto is emerging as leading the way on food system planning, Toronto's licensing and standards committee voted on January 25th 2012 to defer indefinitely a request to conduct a feasibility study of allowing backyard chickens in Toronto. This decision was based on various issues including possible health risks, noise, animal welfare, general nuisance to neighbours, the extra burden it may have put on strained city resources and a general concern that it may open the door to Toronto residents wanting to raise other farm animals in the city (Alcoba 2012).

At the public level, local governments can direct funds towards public infrastructures or city institutions to engage in food system planning. One example is farmer's markets. There are various reasons as to why municipalities may choose to support farmers market or actively engage in regulating them. For example, farmer's markets may contribute to revitalizing a neighbourhood and promoting a local economy while bringing food to areas that may be

[11] Bylaw (1985)-11952 states as follows: "No person shall keep ducks, geese, poultry or pigeons within the limits of The City of Guelph unless kept in pens, with floors kept free from standing water, and regularly cleaned and disinfected, and that such pens be a distance of at least 50' from any school, church or dwelling house not including the owners dwelling house" (The Corporation of the City of Guelph 2006).

underserved[12]. Farmer's Market Canada is an organization dedicated to increasing and supporting the viability, growth and prosperity of Canadian farmers' market and to assist local farmers in connecting with their consumers. In 2008, Farmer's Market Canada conducted a national study to assess Canadian farmers market in all 10 provinces. The report surveyed both users and non-users, visited 70 farmers markets and interviewed vendors and farmers market managers. This exercise revealed that $1.03 billion in annual sales was generated by farmers market, for a total economic impact of up to $3.09 billion. The Farmer's Market Canada report indicated that existing farmers market could benefit from increased marketing efforts, improved guidelines and better buildings or amenities, which suggests that farmers markets can be directly supported by municipalities in the form of access to a secure space, improved on-site amenities, less-restrictive bylaws, financial assistance, promotional and communications assistance and executive or staff support (Farmer's Market Canada 2008).

At the private level, municipalities can offer incentives or enact legislation intended to facilitate the development of private enterprises that contribute to the local food economy and have an impact on the food system. One example concerning this level of intervention is street food vending in Canada. Although the demand for street food has increased along with the number of aspiring street food vendors, Canadian municipalities heavily regulate this activity and strict municipal regulations have been blamed for limiting street food options (Leung 2011). There are various reasons why supporting street food vending can be seen as an attempt by local governments to integrate sustainable food system

[12] Arguably, relatively little research has been done on this so far, but a recent study by Larsen and Gilliland demonstrated that introducing a farmers market in a Food Desert increased availability of healthy food while lowering overall food costs. Since the introduction of the farmers market, residents of the Old East neighbourhood in London Ontario were found to save up to 12% of food costs (Larsen and Gilliland 2009, 1158-1162).

considerations to community planning. In Vancouver for example street food vending is perceived as having the potential to increase opportunities for micro-enterprises, serve as small business incubators, enhance economic vitality by supporting neighbourhood small businesses and business districts, and expanding affordable and nutritious food options. The City of Vancouver and the Vancouver Food Policy Council developed new street food vending guidelines and have been working towards expanding the variety of street food vending by focusing on nutritious and culturally diverse foods, the geographical area in which street food vendors can operate and access to affordable, nutritious food in low-income communities (City of Vancouver 2011).

Federal, provincial and local policies impacting Food Sovereignty

Under the current Canadian agricultural and food policy making system, the federal level is concerned with trade and national standard setting for food safety, grading, and labelling, whereas the provincial level focuses on extension, land use and the internal movement of goods. The majority of other responsibilities, such as production supports, research and development, are shared. A number of para-public and private sectors actors and networks (including marketing boards, research organizations, agribusiness, commodity organizations, universities, farm organizations and other) inform both provincial and federal policy making (Mac Rae 1999, 187). Federal level food and agricultural policy is split between the following eight ministries (when including overseas agricultural development initiatives[13]): Agriculture and Agri-Food Canada; Department of Foreign Affairs and International Trade; Canadian International Development Agency; International Development Research Centre; Canadian Food Inspection Agency; Fisheries and Oceans Canada; Health Canada; and, Industry Canada (Blouin et al.

[13] See Blouin et al. (2009) for a summary of the responsibilities of each department listed here.

2009). These departments administer legislations, trade agreements and programs that impact Canada's food system.

Several federal legislations impact the agro-food industry. For example, the Canadian Agricultural Products Act regulates the import, export and interprovincial trade marketing of agricultural products and standardizes agricultural grading and inspecting procedures Canada-wide. The Species at Risk Act encourages the protection of endangered fish and wildlife species whose habitat include agricultural lands. The Fisheries Act protects fish habitats and outlines measures for pollution prevention, stipulating that agricultural applications (fertilizers, pesticides, fuel, manure, etc) and farming activities must not damage or obstruct any fish-bearing waterways. Other federal legislation addressing various aspects of the agriculture industry include the: Canada Grain Act; Canada Wildlife Act; Consumer Packaging and Labelling Act; Customs Act; Export and Import Permits Act; Feeds Act; Fertilizers Act; Food and Drugs Act, Health of Animals Act; Migratory Birds Convention Act; Pest Control Products Act; Plant Protection Act; Seeds Act; Transportation of Dangerous Goods Act; and, Wildlife Act.

Trade agreements impacting agriculture include the North American Free Trade Agreement (NAFTA) and the Comprehensive Economic Trade Agreement (CETA). The NAFTA is a trilateral agreement between Canada, United States and Mexico established in 1994 to encourage and facilitate increased trade and investment between member nations and work towards eliminating trade barriers (tariff and non-tariff). The CETA is a free-trade agreement between the European Union and Canada whose full text is to be released in 2014. It is Canada's biggest bilateral trade initiative since NAFTA yet the negotiation and drafting process have been perceived as extremely secretive by numerous civil society

organizations. CETA will affect Canada's agro-food industry in several ways, some of which are particularly relevant to this research's focus on local governments. Scott Sinclair, senior research fellow with the Canadian Centre for Policy Alternatives, points to public purchasing as one of CETA's highest priorities with the MASH (municipalities, academic institutions, school boards and health and social service providers) sector being part of a trade agreement for the first time. Current and future MASH sector local food procurement policies might not be compatible with the CETA.

It is not yet clear if or how the CETA will affect provincial legislation such as Ontario's Local Food Act or Québec's Food Sovereignty Policy. Enacted in 2013, Ontario's Local Food Act aims to foster successful and resilient local food economies and systems in Ontario. Part IV of the legislation establishes local food procurement requirements for public sector organizations and ministries. Under Québec's Food Sovereignty Policy (also enacted in 2013), government agencies and public sector organizations are encouraged to engage in responsible and sustainable local food procurement. A local food procurement strategy is expected to provide more details concerning the scope and requirements related to implementing Québec's Food Sovereignty policy. Desmarais and Wittman (2013) argue that the Parti Québécois is using the idea of state-led Food Sovereignty to oppose the CETA to protect Québec's supply-managed sectors, and that the Food Sovereignty language resonates in Québec's historical context characterized by a strong independence movement (Desmarais and Wittman 2013).

In late 2013 Agriculture Minister Gerry Ritz introduced Bill C-18, the Agricultural Growth Act, an omnibus bill amending several federal agricultural laws. The NFU argues Bill C-18 gives multinational agri-businesses more power, money and control while increasing costs for farmers, reducing farmer autonomy

and undermining Canadian sovereignty. The NFU is particularly concerned with Bill C-18 amending the Plant Breeders Rights Act so as to bring Canada under UPOV'91, a plant breeder's regime perceived as more restrictive. In early 2014, the NFU was mounting a campaign calling for the rejection of Bill C-18 and pushing for the development of a "Seed Act for Farmers, not Corporations" (National Farmers Union 2014).

Projects and organizations promoting Food Sovereignty in Canada

As a founding member of LVC, the National Farmers Union (NFU) endorses Food Sovereignty as a guiding principle and advocates for policies that support Food Sovereignty domestically and abroad. Funded and directed by its members, the NFU is a Canada-wide producer organisation at the forefront of the fight against industrial agriculture. The NFU is committed to:

- Ensuring family farms are the primary unit of food production;
- Promoting environmentally-safe farming practices;
- Giving farm women equal voice in shaping farm policy;
- Working for fair food prices for both farmers and consumers;
- Involving, educating and empowering rural youth for a better future;
- Building healthy, vibrant rural communities;
- Ensuring an adequate supply of safe, nutritious food for Canadians.
- Solidarity with family farmers internationally (National Farmers Union 2013)

The People's Food Commission conducted hundreds of consultations across Canada between 1977 and 1980. Released in 1980, the report titled "The Land of Milk and Money" foreshadowed the Food Sovereignty discourse that would take place a generation later. The report documented the onset of industrial monoculture, unfair pricing by quasi-monopolistic processing and distribution

corporations, the growing political influence of these corporations at the expense of farmers, the rise of supermarkets and the resulting rural exodus and nutrition crisis (Blouin et al. 2009). In April 2011, inspired from the People's Food Commission, the People's Food Policy Project launched "Resetting the Table: A People's Food Policy for Canada". The policy platform is based on the six Food Sovereignty pillars established by La Via Campesina. A seventh pillar, which recognizes that "Food is Sacred" was added so as to better reflect indigenous Food Sovereignty, where food, water, soil and air are not viewed as "resources" but as sources of life itself (People's Food Policy Project 2011). Food Secure Canada, which has adopted the People's Food Policy as its platform (and whose members and leaders were instrumental in developing "Resetting the Table"), is a Canada-wide alliance of civil society organizations and individuals advancing dialogue and cooperation for policies and programs that improve food security in Canada and globally.

L'Union Paysanne, another member of LVC, is a Québec-based organization promoting a peasant agriculture dominated by small and autonomous producers and campaigning on several LVC Food Sovereignty issues. L'Union Paysanne is notably challenging the supply-management monopoly exercised by l'Union des Producteurs Agricoles (UPA), an organisation with a history of supporting industrial agriculture in Québec. The Québec-based "Coalition pour la Souveraineté Alimentaire" (Coalition for Food Sovereignty) defines Food Sovereignty as

> "the right of people to develop their own food and agricultural policy; to protect and regulate national food production and trade in order to attain sustainable development goals, to determine their degree of food autonomy, and to eliminate

> dumping on their markets. Food sovereignty does not contradict trade in the sense that it is subordinated to the right of people to local food production, healthy and ecological, realized in equitable conditions that respect the right of every partner to decent working conditions and incomes" (translated by Blouin et al., 2009, 4).

This definition has been adopted by over 42 Québec civil society organizations including the UPA (Coalition pour la souveraineté alimentaire 2013).

Deepening the Food Sovereignty dialogue in Canada includes bringing to light issues pertaining to First Nations communities and the ongoing pressures of colonization such as unresolved treaty processes and the loss of access to territories and relationships that support hunting, gathering, fishing, cultivation and trading of traditional indigenous foods (Desmarais and Wittman 2013). Active since 2009, the Food Secure Canada Indigenous Circle drafted the chapter on Indigenous Food Sovereignty of "Resetting the Table: A People's Food Policy for Canada". The British Columbia Food Systems Network Working Group on Indigenous Food Sovereignty was born in 2006 to carry the indigenous voice throughout the broader food movement.

Salient features of Canadian food and agriculture

Implementing Food Sovereignty requires bottom-up and context specific interventions, which implies that Food Sovereignty will look very different from one community to the other. If we adopt LVC's view of Food Sovereignty there can be no "Canadian Food Sovereignty model", but rather a multitude of models. This suggests that national indicators are of limited relevance when attempting to frame the capacity of local governments to engage in Food Sovereignty Planning.

Yet the local is nestled in a web of provincial and federal interventions. Highlighting salient features of the nation-wide food system helps us situate local governments in the context of the Canadian agro-food policy-making framework and how it translates on the ground. Rod Mac Rae (1999) suggests that although Canadian agriculture has been enormously productive, the fragmentation of issues, knowledge and responsibilities have obscured the costs associated with this success. He asserts that the Canadian food and agricultural policy framework has failed to consider and integrate sustainability and food security. Mac Rae argues that the problems are primarily a product of the deficiencies of the policy-making system, where policy is developed along commodity lines not for food systems (Mac Rae 1999, 187). In his view, because departments of agriculture lack a comprehensive, overarching policy framework in which more specific proposals are evaluated, the market place is allowed to determine the overall direction of agricultural policy, with these departments only intervening to mitigate the negative impacts of the market. As a result, the focus on nourishment, food security and environmental sustainability is subordinated to economic issues (Mac Rae 1999, 187). Food Sovereignty brings environmental sustainability and food security, and economic viability to the forefront of food system policy making. National food system indicators provided below give a broad overview of the evolution and current state of Canada's food system in relation to Food Sovereignty imperatives.

Because Food Sovereignty requires a food system that offers economic viability to small-scale food producers and family farms, the farm income crisis is a major barrier to the realization of Food Sovereignty in Canada. The farm income crisis refers to the phenomenon by which farmers Realized Net Income (RNI) from the markets has been plummeting since the mid 1970's. The RNI is currently at an all times low and shows no sign of improvement even though agric-food exports

have drastically increased. In other words, increased investments, production, productivity and exports are resulting in decreasing returns for farmers. Addressing the food income crisis inscribes itself within the struggle for Food Sovereignty because as the NFU points out, the root causes of the farm income crisis is not the farm. It is rather caused by an imbalance in market power between the world's one billion farmers that operate in a near-perfect competitive sector and the transnational agribusinesses numbering the few links of the agro-food chain (National Farmers Union 2005). In part because the cost of production has increased and the RNI has remained so low, over the years farmers have had to incur more debt to stay in business. In 2012 nationwide farm debt reached $72.62 billion, up 6.1% in 2011 and the largest year-over-year increase since 2008, when the total collective debt was up 7.4% (Statistics Canada 2009). The number of Canadian farms has decreased by 70% between 1931 and 2006 (from 728,623 to 229,373) whereas the total area of cropland slightly increased (Statistics Canada 2009). In 2011, Canada had 205,730 census farms, a decrease of 10.3% (or 23,643 farms) compared to 2006 (Statistics Canada 2012). With fewer Canadians living on farms (in 1931 almost a third of Canadians lived on farms, compared to 2% in 2006 (Statistics Canada 2009)) and relatively fewer Canadians employed in agriculture (in 1921 agriculture provided 33% of all Canadian jobs compared to 2% in 2006 (Statistics Canada 2009)), the social fabric of rural agricultural communities is shifting rapidly. For example, in 2011 48.3% of farm operators were aged 55 or over, compared to 40.7% in 2006. This is the first time that the 55 and over category represents the highest percentage of total Canadian farm operators, with just 8.2% of farm operators being younger than 35 (Statistics Canada 2012). In Canada, the youngest farmer average age is found in Québec (average age of 51) and the oldest farmer average age is in British Columbia (average of 55.7) (Statistics Canada 2013a). Generally speaking the agriculture and agric-food system (which includes several industries such as

the farm input and service supplier industries, food and beverage processing, food distribution, retail, wholesale and foodservice industries, and primary agriculture) continue to play an important role in federal and provincial economies, contributing 8% of Canada's total Gross Domestic Product and employing 1 in 8 Canadians (2.1 million people) in 2011(Statistics Canada 2013a). In 2011 primary agriculture (all work performed within the boundaries of a farm, nursery or greenhouse and directly related to production) accounted for 1.7% of Canadian Gross Domestic Product (Statistics Canada 2013b).

Food Sovereignty calls for ensuring access to healthy and culturally appropriate food to all by building co-dependent relationships that benefit both producers and consumers. From a food production standpoint, the dilution of Canada's farmer population poses a threat to food security. But food insecurity goes beyond food availability to include food accessibility, meaning that healthy foods must be financially and physically accessible for Canadian households to be food secure. In 2007-2008, 7.7% of Canadian households were considered food insecure (Health Canada 2011[14]). In March 2011, Food Banks use was 26% higher than in 2008, and Food Banks assisted 2.5% of the population in 2011 compared to 2% in 2008 (Food Banks Canada 2011, 2). In 1976, Canada signed the United Nations Covenant on Social, Economic and Cultural Rights, which includes the fundamental right of everyone to be free from hunger. When visiting Canada in 2012 Oliver DeSchutter, UN special rapporteur on the right to food, pointed to food insecurity levels and urged Canada to adopt a national "right to food" strategy. He was particularly preoccupied with the fact that numerous Canadians are too poor to afford an adequate diet, high rates of obesity, and issues specific to First Nations communities (United Nations 2012). The cost of diabetes in Canada

[14] Available online at http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/insecurit/key-stats-cles-2007-2008-eng.php

has been projected to rise from $6.2 billion annually in 2000 to $16.9 billion by 2020 (Canadian Diabetes Association 2009). The shifts in the relative amount that Canadians spend on food, and the amount received by the producer (the food price margin) in the last 40 to 50 years, are also telling of how the economic relationship between consumer and producer is evolving. Total personal spending of Canadians has increased relatively more than spending on food and alcohol. Compared to citizens of many other countries, Canadians are spending a smaller portion of their income on food. Canadians dedicated 28% of their personal expenditures to food in 1961 compared to 17% in 2007 (Statistics Canada 2009). Wholesalers, retailers, transporters, taxes and other factors determine the difference (i.e. the margin) between the price paid by the consumer and the price received by the producer. In 1964, total margins accounted for 29% of food costs whereas in 2004 they were responsible for 43% (Statistics Canada 2009).

Food Sovereignty necessitates the adoption of ecological food system practices to secure economic viability and food security in the long term. Yet the lost value due to food wasted in Canada has been estimated at $27 billion (Gooch, Felfel, and Marenick 2010). Discarding food waste in landfills can emit high levels of methane and carbon, two important sources of GHG emissions. GHG emissions from agriculture in Canada increased by 25% between 1990 and 2006 (Statistics Canada 2009). Compared to 1970, the herbicide application area on farms had increased by 190% in 2005, with the largest areas being found in Saskatchewan, followed by Alberta and Manitoba (Statistics Canada 2009). The organic food market is a dynamic and rapidly growing sector worldwide and Canadian farmers are responding to this trend. Between 2001 and 2011, while total farms in Canada declined by 17% the number of certified organic farms grew by 66.5% (Statistics Canada 2012). 6.8% (over 15,500) of all farms in Canada produced organically grown food (not certified) products in 2006 with the highest proportion being

found in British Columbia, where 16.3% of farms reportedly produced food using organic methods (Statistics Canada 2009).

Summary

Chapter Two showed that although federal and provincial legislation has precedence over local policy, Canadian local governments are increasingly engaged (albeit at various levels) in what MacRae and Donohue (2013) refer to as "food policy entrepreneurship". Municipalities are reportedly applying food system thinking in the municipal and regional planning processes to shift the dynamics amongst food system actors to improve environmental sustainability, health promotion and economic development (MacRae and Donahue 2013). The formation of FPC's, the development and adoption of Food Charters, the integration of SFS considerations to community plans and strategies, and the development and implementation of food system assessments emerged as four trending processes assisting local governments in developing food-related policies and initiatives. Local governments can influence the local food system by intervening at the household, public and private levels.

In Canada, the quest for Food Sovereignty is concerned with all levels of policy making by federal, provincial, and local institutions, and is indirectly impacted by para-public and private sectors and networks who inform policy making (Mac Rae 1999, 187). International trade agreements such as NAFTA and CETA, and more recently the federal Agricultural Growth Act (omnibus Bill C-18), affect multiple aspects of the food system and are perceived by some organizations as undermining Food Sovereignty imperatives and restricting the capacity of communities to engage in local food system planning. Canadian organizations including the NFU, Food Secure Canada and l'Union Paysanne, are actively promoting the Food Sovereignty concept as defined by LVC. The Food

Sovereignty dialogue in Canada also brings to light issues pertaining to First Nations communities and the ongoing pressures of colonization.

Canadian agriculture has been very productive but the fragmentation of issues, knowledge and responsibilities have obscured the costs associated with its successes (Mac Rae 1999, 187). Several national indicators indeed point to Canada's agriculture and agro-food system downfalls: The farm income crisis is persisting, the social fabric of rural agricultural communities is shifting rapidly as fewer and fewer Canadians are employed in agriculture, many Canadians are facing food insecurity (especially marginalized communities such as First Nations) and environmental issues associated with production and distribution practices and waste are an ongoing concern.

In 1999, Mac Rae argued that these problems were primarily a product of policies being developed along commodity lines and not for food systems. Interestingly, his later work shows local and regional municipalities applying food system thinking and engaging in food system planning through a mix of municipal policies, programs and civil-society interventions (MacRae and Donahue 2013). In my view, this contrast raises the question: Are local governments better equipped than their provincial and federal counterparts to engage in food system thinking and planning? Although finding a definitive answer to this question is unlikely, documenting local food system planning occurrences may inform a broader dialogue on the potential contribution of local governments to Food Sovereignty. The following chapter feeds into this dialogue by presenting case study research describing how two rural Canadian communities engage in food system planning.

Chapter Three: Case studies

Chapter Three tackles the first research question: 1) How are small rural communities applying Food Sovereignty to create just and sustainable food systems? The case studies presented in this chapter intend to help us explore how the Food Sovereignty concept is embodied in small rural Canadian communities, also giving us reference points from which to extract Food Sovereignty indicators. To be considered as a case study, communities had to be situated in a rural context and demonstrate innovative Food Sovereignty Planning best practices driven by the community and/or the local government. I also searched for communities for whom additional resources in the form of academic papers and reports were available. These resources deepened my perspective on the community's history and current socio-geographical context and enriched my analysis. The willingness and availability of interviewees to discuss, provide guidance and general feedback were other determining selection factors.

I selected St-Camille (Québec) and Salt Spring Island (British Columbia) because they meet the criteria highlighted above but also because I was able to conduct in-person visits over time since they are both situated fairly close to where I farm (Vancouver Island) and study (Montréal). Selecting communities under different provincial jurisdictions allows me to conduct a comparative study highlighting both the diversity and similarity in how the aspirations of Food Sovereignty are reflected in governances' planning processes, project development and community led initiatives. For each community, chapter three: provides provincial and community-specific background information (section I); describes key achievements (Section II); highlights key barriers and emerging challenges (Section III); discusses best practices, precursors, greatest achievements and replicability (Section IV); and, explores how the six Food Sovereignty principles can be related to the findings of sections I to IV (Section V). The research

concerning Salt Spring Island was primarily conducted in the 2012 summer while that regarding St-Camille was undertaken in the winter of 2013.

Salt Spring Island Case Study

Methodology

This chapter explores how SSI is articulating and applying Food Sovereignty principles to make agriculture on SSI a sustainable and viable endeavour. The Salt Spring Island (SSI) case study is based upon the review of reports, a phone interview with the chair of the Salt Spring Island Agricultural Alliance (SSIAA) Anne Macey, a meeting with 6 members of the SSIAA and Patricia Reichert (author of several SSI food reports a past Chair of Islands Natural Growers), email correspondence and site visits of the SSI abattoir and the Fulford Property. Unless specified otherwise, the statistical data for SSI, British-Columbia and Canada presented in this case study has been obtained from Statistics Canada 2006 and 2011 Censuses of Agriculture available at http://www.statcan.gc.ca/ca-ra2011/index-eng.htm.

Section I: Background

Community Profile

SSI is located in the Strait of Georgia, between the cities of Vancouver and Victoria, British Columbia (BC). Part of the Southern Gulf Islands region, SSI is the largest and most populated island with a growing population of 10,243 in 2011 (a 6% increase from 9,640 in 2006). The 183km^2 island is accessible from Vancouver Island and other nearby islands by floatplanes and three ferry routes.

The climate of the Southern Gulf Islands is comparable to that of Northern Mediterranean regions with wet, mild winters and cool dry summers (van Vliet, Green, and Kenney 1987). SSI is in the Plant Hardiness Zone 7, which

corresponds to one of the mildest growing environments in Canada[15]. Soils with agricultural capability are generally found at elevations below 100m above sea level (in topographic depressions, valley bottoms or gently sloping terrains), which represents 17% of the SSI land area (Masselink Environmental Design 2008). In addition, SSI is home to numerous sensitive ecosystems, which are defined as fragile and/or rare, or ecologically important because of the diversity of species they support. The islands in the Strait of Georgia have a high density of rare species and as such hold a disproportional number of sensitive ecosystems (Islands Trust 2008b).

Agriculture on SSI

History

SSI is part of the Coast Salish First Nations traditional territory. The first non-native settlers arrived in 1859 to establish farms to feed Victoria's growing population. Dairy, fruit, poultry, sheep and animal feed production became important agricultural activities, much of which was exported to Victoria and some to Eastern Canada. These activities began declining post World-War II in large part due to the rising cost of feed, shipping, and competition from other emerging farming operations on the mainland. In the 1970's and 1980's an agricultural revival emerged with the growth of small-scale (often organic) agricultural enterprises as well as the reestablishment of the SSI Fall Fair and the acquisition of the Farmers Institute Fair Grounds by the SSI Farmer's Institute (Masselink Environmental Design 2008).

[15] The Plant Hardiness Zones is an 8-zone index illustrating the suitability for growth of trees, shrubs and flowers. It is based on climatic data including minimum winter temperatures, the duration of the frost-free period, summer rainfall, summer maximum temperatures, snow cover, January rainfall and the maximum wind speed. More information is available at http://atlas.nrcan.gc.ca/site/english/maps/environment/forest/forestcanada/planthardi/1

Tourism

Today SSI is home to both permanent and seasonal residents. When it comes to tourism, it is one of the most popular islands of the Southern Gulf Islands, an area that welcomed approximately 665,000 tourists in 2007. Agriculture and Agri-tourism is a significant contributor to the overall tourist-visitor SSI economy. Two weekly community and farmer's markets, the Saturday Market and the Tuesday Farmers Market, as well as farm gate sales, winery tours and other food and agriculture-related events (such as the Salt Spring Island Annual Fall Fair) provide opportunities to sell and purchase locally raised or processed food items, for tourists and residents alike (Ecoplan international 2008).

Current situation

Table 1 shows that the total number of farms, the number of operators and the average age of farm operators have increased on SSI. The increase of the average age of farm operators is consistent with both provincial (from 53.6 yrs in 2006 to 55.7 yrs in 2011) and national trends (from 52 years in 2006 to 54 years in 2011). From 2006 to 2011 farms less than 10 acres decreased by 3% on SSI. However, with 37% of farms that are less than 10 acres, SSI has a higher proportion of small farms compared to provincial (26.9% in 2006 and 29.5% in 2011) and national (5.7% in 2006 and 6.3% in 2011) statistics. Interestingly, while the number of farms increased by 15 % on SSI from 2006 to 2011, it has decreased in both BC (from 19,844 in 2006 to 19,756 in 2011, a 0.4% decrease) and Canada (from 229,373 in 2006 to 205,730 in 2011, a 10.3% decrease). Also, the total number of farm operators increased by 20.4% on SSI from 2006 to 2011 whereas it slightly increased by 0.2% in BC and decreased by 10.2% in Canada.

Table 1. SSI farms and farm operators				
	Total number of farms	**Number of farm operators**	**Average age of farm operators**	**Farms less than 10 acres (total area)**
2011	192	295	57	37%
2006	167	245	55.3	40%

Local Governance

SSI is part of the Islands Trust, a federation of independent local governments created under the 1974 Islands Trust Act of the Government of British Columbia. The mandate of the Islands Trust is to preserve and protect the trust area and its unique amenities and environment (Islands Trust 2008a). SSI elects local representatives every three years to form the Salt Spring Island Local Trust Council (SSILTC), which is composed of two elected local trustees and a chair appointed by the Trust's Executive Committee. The SSILTC directs the development of official community plans, zoning and other land use planning and bylaws on SSI. The Salt Spring Island Agricultural Advisory Committee (SSIAAC) provides advice to the SSILTC on agricultural matters[16].

SSI is also part of the Capital Regional District (CRD). The CRD is a federation of 13 municipalities (including Victoria) and 3 electoral areas: SSI, Southern Gulf Islands, and Juan de Fuca (Capital Regional District 2012a). The CRD is managed by the CRD Regional Board, which is composed of 23 Electoral Area Directors elected every three years. On SSI the CRD provides services including regional parks, drinking water, waste management, bylaw enforcement, transit and transportation, building inspection and emergency services. In the case of unincorporated electoral areas like SSI, the CRD Board acts as councillor and

[16] As of April 2011, forty-five BC Agricultural Advisory Committees were serving local governments at various levels (municipalities, cities, Gulf Islands Trust Committee, region, or multiple jurisdictions) (Ministry of Agriculture and Lands 2012)

provides a forum for electoral area bylaws to be prepared and voted upon (Capital Regional District 2012b).

Provincial Legislation

Below is a brief overview of the legislative activities of the provincial ministries, including the Ministry of Agriculture and Land, the Ministry of Environment and the Ministry of Health, which regulate and impact food and agriculture on SSI.

The BC Ministry of Agriculture administers legislation that affects agricultural land and agricultural production, including the Local Government Act (sections 916-919 only), the Agricultural Land Commission Act, and the Farm Practices Protection (Right to Farm) Act (Ministry of Agriculture and Lands 2012). Under article 917 of the Local Government Act, local governments can draft bylaws in relation to the following farming areas: the conduct of farm operations as part of a farm business, types of buildings, structures, facilities, machinery and equipment that are prerequisite to conducting farm operations, the siting of stored materials, waste facilities and stationary equipment, and prohibiting specified farm operations. The Agricultural Land Commission (ALC) is an independent government agency created by the 1973 ALC Act to preserve agricultural land, promote farming and encourage B.C. governments to enable and accommodate farm use of agricultural land in plans, bylaws and policies. The ALC was created in part because agricultural land, as a finite (non-renewable) and valuable resource, represents less than 5% of the total BC land area (Curran 2005). At the core of the ALC is the Agricultural Land Reserve (ALR), a provincial land use designation (or zone) applied to land with agricultural capabilities whose purpose is to ensure the preservation of BC's scarce agricultural land base. Components of the ALR regime include the definition of land included in the ALR, restrictions on non-farm uses and restrictions on subdivisions (Government of British Columbia).

The 1995 Farm Practices Protection (Right to Farm) Act safeguards farm operations from nuisance lawsuits and nuisance bylaws. Local governments are prevented from prosecuting farmers for normal farm practices that may contravene bylaws relating to issues such as nuisance, disturbance, and the presence of animals. The Act also establishes a process to resolve potential concerns and complaints.

The ALR and SSI

From 1973 to 2004 BC experienced no net loss of farmland, which stands in contrast to the rest of Canada where the amount of viable agricultural land converted to urban land doubled from 1971 to 2001. Nonetheless, higher quality ALR land in BC is being lost primarily because it is situated in areas with competing urban uses. Land included in the ALR tends to be in northern BC whereas land excluded is usually in the more fertile southern part of the province. ALR land can only be rezoned through the approval of the ALC or another provincial body. This implies that although local governments play a role in authorizing certain activities on farmland, provincial law ultimately limits the land use planning authority of the local government on privately owned ALR land (Curran 2005). According to the 2006 Salt Spring Island Agricultural Land Use Inventory, 15% (2,920 ha) of SSI land area is part of the ALR, 54% of which was actively being farmed. Farming also occurs on non-ALR land: of the 3,011 ha farmed on SSI in 2006, 56% occurred within the ALR and 44% outside the ALR (Ministry of Agriculture and Lands 2006)[17].

[17] In November 2013, the Globe and Mail reported that Pat Pimm, BC Agriculture Minister, put forward a proposal to dismantle the Agricultural Land Commission and for the B.C. Oil and Gas Commission to assume new responsibilities for land use decisions (Hume 2013). As of March 2014, the Farmland Protection Coalition, a grassroots organizations formed to protect farmland and supporting farmers, was engaged in a variety of actions and demonstrations to save the ALR.

The BC Ministry of Environment administers legislation that affects agricultural land such as the Drainage, Ditch and Dike, Environmental Management, Fish Protection, Park, Pesticide Control, Water Protection, Wildlife and Assessment Acts (Curran 2005)

The Food Safety Act, which regulates the entire food industry from production to restaurants and retail, is administered by the BC Ministry of Health at the food processing level and the Ministry of Agriculture at the farm level. Inspection and enforcement of these regulations are the responsibility of local health boards and inspection agencies. When the Food Safety Act came into force in 2002, thereby consolidating the province's food safety legislation into one statute, amendments were made to the Food Premises Regulation, the Meat Inspection Regulation (MIR) and the Milk Industry Standards Regulation.

The MIR and SSI

Enacted in 2004, the amended MIR introduced standards that made existing, non-licensed abattoirs or on-farm slaughtering practices illegal, thereby requiring that all slaughtering take place in licensed facilities to produce meat for sale for human consumption[18]. Prior to the new regulations, meat sold in butcher shops or retail outlets (95% of the meat sold in BC) were required to be processed in inspected facilities with the remaining 5% being processed by farmers or non-

[18] According to the BC Ministry of Health the new MIR was designed to implement a comprehensive system for identifying diseased or contaminated meat, improve trace-back capabilities and improve the overall "marketability and sustainability for the meat processing industry" (Ministry of Health 2012). Ironically, Rory McAlpine, Deputy Minister of the B.C Ministry of Agriculture, Food and Fisheries from 2002 to 2005, introduced the amended MIR. In 2005, McAlpine became Vice-President of Government & Industry Relations at Maple Leaf Foods Inc., less than three years before a deadly listeriosis outbreak was traced back to Maple Leaf deli meat products.

licensed facilities (Ramsay 2006). The new MIR is widely viewed as the cause of a drastic decline in livestock production on SSI. Because there were no licensed abattoirs on SSI, the regulations required farmers to transport live animals off island to a licensed plant and return to the abattoir at a later time to retrieve the meat, an expensive, time consuming and stressful process for both animals and farmers. The 2010 SSI Livestock Production Study indicates that the total number of animals (sheep, cattle, pigs and goats) had decreased by approximately 44% since 2004-2005, whereas the total number of poultry sold for meat had decreased by approximately 52% since 2004 (Reichert and Thomson 2010).

Food Security

The 2006 discussion and planning paper titled "Salt Spring Island Food Security" conducted a preliminary food security assessment, identified action priorities and developed a planning framework to move ahead on responding to the report's findings[19].

A few findings from the paper include:

- In the decade preceding the 2006 report, SSI land values increased by over 60%.
- At the time of the report farmers produced enough meat and produce to provide approximately 5% of the total amount of food eaten on SSI, much of which was only available seasonally. Large international distributors brought in 95% of the food sold on the island.

[19] This paper was funded in part by the Vancouver Island Health Authority's (VIHA) Community Food Action Initiative (CFAI) whose objectives are to "increase awareness of food security, improve access to local and healthy food, promote food knowledge and skills, increase community capacity to address local food security, and develop policy to support community food security" in BC. The CFAI is funded by the Ministry of Healthy Living and Sport and implemented by the five Regional Health Authorities of the province.

- Over 80% of produce farmers reported organic practices (without necessarily being certified) yet only 25% of commercial producers were certified.
- Local grocers carry enough food for SSI to last about 3 days (Reichert 2006).

Climate Change

The 2005 Salt Spring Island Community Energy Strategy[20] is a living-document framework for energy planning and greenhouse gas (GHG) reduction that calculated indirect emissions (diesel oil equivalents used to produce and transport SSI's groceries based on North American norms) from food to be 38% of total SSI GHG emissions. Officially endorsed by the SSILTC, the strategy suggests replacing 10% of SSI's imported food with local products by 2012 to provide about 23% of the total GHG reductions targeted (back to 2002 GHG emissions by 2012). The strategy recommended supporting the development and implementation of a SSI food strategy and assessment, public awareness campaigns and the increased production and consumption of local organic food by working with existing food and agriculture organizations (The Earth Festival Society 2005). In 2011, the Salt Spring Island Action Plan was completed in the context of BC's 2008 Climate Action Plan, setting new targets for 2015 and 2020[21]. In March 2012 the Salt Spring Island Climate Actions Progress Report showed that all three recommendations from the 2005 Community Energy Strategy were being implemented.

[20] Prepared by the Earth Festival Society and funded in part by the Islands Trust Committee, the CRD, Environment Canada EcoAction Program and VanCity Credit Union.

[21] Under amendments to the Local Government Act (Bill 27), local governments must include GHG reduction targets in their Official Community Plan.

Section II: Key Achievements

In 2005 the SSIAAC recommended the development of an Area Farm Plan (AFP). The SSI Farmer's Institute and the Island Natural Growers (ING), in collaboration with the SSILTC and the BC Ministry of Agriculture and Lands, completed this process in January 2008[22]. The consulting firm Masselink Environmental Design facilitated three Community Dialogue sessions and drafted the AFP under the direction of the Steering Committee. The mission of the AFP process was: "To return agriculture to a place of prominence on Salt Spring Island as a healthy, viable and culturally supportive endeavour". Central goals of the plan were to: "Re-establish agriculture as a social, cultural and economic priority; Facilitate the growth of associated farming activities; and Encourage the adoption of environmentally and socially considerate farm practices" (Masselink Environmental Design 2008). Of the twenty-five recommendations, made, the following three are the key recommendations to be prioritized in the implementation of the plan.

1. "Establish a Salt Spring Agricultural Alliance…to assume the responsibility of the implementation of the AFP…and provide a central contact point and coordinating role for agricultural matters on or involving Salt Spring Island.
2. Establish a community farmland trust…that can accept, acquire and manage farmland and ensure that it is farmed in perpetuity.
3. Establish key community facilities that support the expansion of agricultural activities…(including) an abattoir, and cold storage, processing and composting facilities on Salt Spring" (Masselink Environmental Design 2008, 51-53).

[22] Funding and support were provided by the Investment Agriculture Foundation of BC (through Agriculture and Agri-Food Canada's Advancing Canadian Agriculture and Agri-Food Program), the SSI Farmer's Institute, the ING, the SSILTC, the CRD and the BC Ministry of Agriculture and Lands.

As explored in greater detail below, significant progress has been made on several recommendations in large part due to the 2008 establishment of the Salt Spring Island Agricultural Alliance (SSIAA) and the Salt Spring Island Farmland Trust.

Key AFP recommendations #1: Establish the SSIAA

Activity or project responding to AFP recommendations: Establishment of SSIAA in November 2008

SSIAA mandate: Implement the AFP

SSIAA ongoing activities

Advocacy in local agricultural issues and policy: The SSIAA has been involved in a variety of advocacy work relating to the AFP recommendations. For example, the SSIAA has submitted letters to the BC government on local agricultural issues, including the revision of the Agricultural Waste Control Regulation and the preservation of agriculture in SSI's Burgoyne Bay Provincial Park. In 2009 the SSIAA also produced farm housing discussion points for the SSILTC proposing revised definitions of related terms (i.e. "farm operation", "farm dwelling" and other) as well as possible criteria (addressing location, type of housing and other) and enforcement for SSI farm housing.

Development of facilities that support agriculture (including advocacy, education, fundraising and more): The SSIAA has been the driving force behind the planning and development of the SSI Agriculture Infrastructure Project, a community initiative intended to develop three infrastructures that support the expansion of agriculture on SSI. The section "Key AFP recommendation #3" provides a description of these infrastructures.

Key AFP recommendation #2: Establish a community farmland trust

Activity or project responding to AFP recommendations: The Salt Spring Island Farmland Trust was established in 2009.

SSI Farmland Trust mandate: Help the SSI community turn the corner on the eroding farm base on Salt Spring and provide opportunities for new farmers (Salt Spring Island Farmer's Institute).

Vision of the SSI Farmland Trust: Help create access to affordable land, and offer other compatible agricultural uses for the community (Salt Spring Island Farmer's Institute).

SSI Farmland Trust Activities:

The Fulford Property: The SSI Farmland Trust is transforming (installing drainage, fencing, irrigation infrastructure, etc) the Fulford Property, a sixty-acre piece of agricultural land (gifted by land owners, Three Point Properties, and rezoned by Islands Trust) into a food producing opportunity for the SSI community. The Fulford Property is now home to the Shaw Family Community Gardens, which consists of approximately 80 community garden plots (20 x 50 ft[23]). These gardens occupy only six of the sixty acres of the Fulford Property. In future years, the remaining acreage will involve a mixture of private tenants, including young food farmers who will use the land to help sustain local residents, restaurants and food outlets. This project, which is still in its infancy, has been described by SSIAA members as a farm incubator adapted to the SSI context.

[23] Support (financial and other) for the community gardens has been provided by the Salt Spring Island Foundation Shaw Family Fund, the Victoria Foundation, VIHA's CFAI, the Berman Foundation and SSI Community Services.

Figure 2. In July 2012 the occupation of the Shaw Family Community Gardens was beginning

Key AFP recommendation #3: Establish key community facilities that support the expansion of agricultural activities

Activity or project responding to AFP recommendations: Ongoing development of the SSI Agriculture Infrastructure Project.

Mandate of the SSI Agriculture Infrastructure Project: Develop three facilities, an abattoir, a produce centre and a community composting facility, necessary to increase SSI's capacity to produce, process, and market food grown or raised on the island.

SSI Agriculture Infrastructure Project Activities:

A $50,000 Vancity Envirofund grant provided the SSI Agriculture Alliance with the funds to plan and start the development of the three proposed facilities.

SSI Abattoir: To overcome the challenges posed by the MIR the SSIAA has championed the construction of an abattoir to maintain the agricultural

community and encourage local food production. The development of this project has been informed in part by the 2005 Gulf Islands Livestock Processing Study and the 2010 Salt Spring Island Livestock Production Study. To cover the abattoir's $350,000 capital budget the SSIAA obtained $150,000 in provincial funds from the Meat Transition Assistance Program, and raised more than $230,000 from the SSI community. The abattoir is designed to accommodate red meat and poultry, two meat types with different processing regulatory and infrastructure requirements. The SSI community through the SSIAA owns the assets of the abattoir and the Salt Spring Abattoir Society has been set up to run operations. The abattoir has been in operation since September 28th, 2012 with a class B Poultry license. By January 3rd 2013, the abattoir had provided part-time work for seven employees and had processed 1239 chickens, 266 turkeys and several dozen ducks and geese from 45 poultry producers (Salt Spring Abattoir 2013). It is anticipated that red meat processing will commence in February 2013. In addition, the SSIAA is currently investigating the possibility of building an on-site anaerobic digestor to transform offal into renewable fertilizer products and renewable energy instead of paying to ship these by-products off-island (Off-grid Gas and Fertilizers Ltd 2012).

Figure 3. The SSI abattoir under construction in July 2012

Figure 4. The SSI abattoir on its first day of operation (obtained from Anne Macey)

SSI Local Produce Centre: In 2005 ING published the Local Produce Study which revealed that the quantity of produce farmed locally was insufficient to feed SSI residents, that most of the produce was available only through the spring, summer and early fall and that commercial produce farmers on SSI were interested in coordinating with one another various aspects of their operations (Reichert 2005). Eight years later, the SSIAA is driving the development of the Salt Spring Island Farm Produce Centre, a multi-purpose facility designed to support SSI agriculture by storing, processing and distributing island farm products. The Produce Centre aims to build a dependable food supply and a strong local food brand, increase access to local food and increase farm

profitability by diversifying market access and expanding market streams. Characterized as a social enterprise, the Produce Centre will operate as a non-profit organisation on a cost recovery basis. Core services will include storage, processing and packing space for salad and braising greens, and commercial processing and packing. Secondary services will include sorting, handling and prepping for commercial distribution; Ordering and delivery system for commercial buyers; Small scale food processing and co-branding; joint ventures, including incubator services for product development; Greenhouse for lease revenue and use of energy from refrigeration compressors. Tertiary services will include small farm equipment rental, office spaces, workshops and mentoring, marketing support, a clearinghouse for agricultural information, CSA coordination and distribution station (Reichert 2012).

As a condition for the private company Beddis Development Ltd. to remove SSI land from the ALR, the ALC allocated a 0,6 hectare parcel to the Produce Centre project. Beddis Development is also required to provide assistance with site preparation, donate 1000 square feet of building and provide $40,000 in cash toward development costs. The estimated cost of the project is $380,000. On September 20, 2012, the Salt Spring Island Local Trust Committee approved the rezoning which supports the proposed agricultural facility on Salt Spring Island. The parcel has been transferred to the SSI Farmland Trust and further work on the project will begin later in 2013.

Composting Facility:

The Salt Spring Island Central Composting Feasibility Study was completed by the SSIAA in 2010[24]. The final report proposed a Pilot Demonstration Project that would collect and compost general organic materials. A local farmer offered his land to host the project but it was cancelled in 2011 when the farmer withdrew his support as a result of a neighbour's complaint. The SSIAA modified its approach and decided to involve a farm willing to accept clean woody debris from the public, thereby eliminating the need for regulatory approvals. Three "Bring Your Branches" days were held in the spring of 2012 for public drop off of clean woody debris at different sites. The resulting material was donated to the Rainbow Road Park Allotment Gardens and work to implement the composting pilot project is ongoing.

Section III: Key Barriers and Emerging Challenges

In July 2012 SSIAA members were asked to reflect on the key barriers to achieving a sustainable food system on SSI and how they are being overcome. Some of these barriers have been in place since before the publication of the AFP and the formation of the alliance whereas others have emerged throughout the development and implementation of SSIAA activities.

Unsupportive Provincial and Federal Policy

"We shouldn't have to fight our government for food production, there is something fundamentally wrong with that" – Tony Threlfall, SSIAA member

Changes in provincial and federal policy relating to food and agriculture are perceived as being developed primarily to address the needs of large-scale agri-businesses and are unsupportive of the SSI context of small-scale farming

[24] With the support of the Agri-Food Futures Fund, Islands Agri-Food Initiative, Capital Regional District, Islands Trust, Salt Spring Island Farmers' Institute, ING, and the Earth Festival Society.

operations. Policy changes like the revised MIR are considered to significantly hinder local food production. The SSIAA has responded to this challenge by successfully developing volunteer driven and community-funded infrastructures that meet provincial and federal regulations and are designed specifically to address the needs of the SSI community. However projects such as the abattoir require tremendous effort and coordination. In reference to the abattoir project, one SSIAA member said, "things are happening on SSI, the abattoir will open…but it nearly killed us, we can't keep up that pace".

Lack of Funding and Support

"Agriculture is a forgotten industry"- Tony Threlfall, SSIAA member

The lack of funding and support at all levels, including federal, provincial, the CRD and the Islands Trust, is considered to be a form of abandonment or neglect from the provincial and federal governments of small-scale farming operations. The absence of agricultural extension agents, funding for research, field trips or infrastructure for SSI farmers confirms that policy-making and the allocation of funds are no longer geared towards supporting small-scale agriculture. According to SSIAA members, although some funding support is available for the development of feasibility studies, reports or plans, governments are very reluctant to provide funds to be used for infrastructure development: "There is no bricks and mortar money, no financial support if you can resell the infrastructure" (Patricia Reichert). One exception is the abattoir project, which received infrastructure-dedicated funding from the BC Meat Transition Assistance Program that ended in 2010.

Development and Application of Local Food Policy

"We now have some policies that support agriculture on SSI but translating these policies into practical actions is still a major challenge"- Margaret Thomson, SSIAA member

Prior to the AFP, the absence of local policy that took into account local agriculture was a major obstacle to establishing farming as a community priority on SSI. However, the AFP process achieved greater integration of language supportive of local agriculture in the SSI Official Community Plan (OCP) review process, which was being undertaken alongside the development of the AFP. For example, whereas one of the 1998 SSI OCP objective was to "support farming as an important traditional land use, lifestyle and livelihood on Salt Spring Island" (Islands Trust 1998), the AFP recommendation to amend and modernise the OCP description of farming land use was accepted. The revised 2010 OCP now supports farming as a social, cultural and economic priority and an ecologically responsible land use on SSI (Islands Trust 2010). According to SSIAA members, officially identifying the promotion of local agriculture as a policy initiative was a major breakthrough. However, some SSIAA members felt that not enough of the AFP recommendations were included to the revised OCP.

Even if the OCP officially supports agriculture on SSI, translating the OCP into land use applications, bylaws and other practical actions as well as navigating the various legal hoops and regulations are perceived as significant challenges by the SSIAA. Conducting the various reports and obtaining the permits required to establish key community facilities that support the expansion of agricultural activities can be complicated and typically consume large amounts of time, energy and resources. The abattoir project illustrates this specific challenge: Because there was no property on the island zoned to host an abattoir, the abattoir is currently operating on a temporary use permit, on leased land which does not ensure long term security.

Communication

"Every time we start a new project we run into a range of unanticipated barriers. Communication is key to overcoming barriers"-Tony Threlfall (SSIAA member)

Lack of communication with local regulatory bodies and navigating the complexity of policy language are other challenges faced by the SSIAA. Communication with the community has been crucial in gaining support for the abattoir project whereas it is believed that a lack of communication inhibited the composting pilot project. The SSIAA views communication and transparency as an important tool. However, ensuring ongoing and consistent communication with the farming community has proved challenging in some instances.

Housing

"There is a need for more affordable housing on Salt Spring for farm labourers and new farmers. Current land use regulations limit the construction of permanent, on-farm housing and prevent farmers from offering long-term, good quality housing to farm labourers."-SSI Area Farm Plan

A current lack of affordable farm housing is seen as being a limiting factor for people to farm on SSI. It is considered to be the result of a combination of local Islands Trust by-laws and ALC rules. In 2009 the SSIAA submitted farm housing discussion points to the SSILTC (see "Advocacy in local agricultural issues and policy") but as of July 2012 no progress had been made on this matter.

Land availability and accessibility

"Precious farmland zoned for agricultural use requires protection and young, hard-working farmers seeking long-term tenure should be supported"- SSI Farmland Trust website

SSI is home to numerous sensitive ecosystems, particularly riparian areas, which are protected by strict Islands Trust regulations. This results in relatively less land being available for agricultural purposes. Whereas the limited availability of land is perceived more as a reality than a barrier, high land prices are believed to significantly limit land accessibility. The fact that agricultural land has to compete in the open market drives up the price of land, which prevents young or new farmers from entering the farming profession. As seen above, the SSI Farmland Trust Fulford Property project aims to make farmland available and accessible to new farmers.

Local government structure

"We have a local representative, not a local government"-Anne Macey, SSIAA Chair

SSI is the most populated unincorporated area in the province and is locally governed by both the Islands Trust and the CRD. Because the CRD also includes larger and more populated areas like Victoria, SSI's needs were perceived by the SSIAA as competing against the needs of urban areas who may have more "weight" in the local government structure. According to SSIAA members, although tax rates on SSI are the same as in downtown Victoria, SSI has access to fewer services delivered by the CRD. The argument can be made that taxes paid by SSI residents are benefitting the more densely populated communities. The question of whether SSI should incorporate to gain greater control of tax revenues is a polarizing debate on SSI. However, SSIAA members indicated that the structure of the local government might also hold some benefits, including a greater, more direct access to provincial agencies. In the case of promoting farm

housing, the SSIAA has had the opportunity to have direct access to the ALC without intervening bodies (such as a municipal government) who could hypothetically have been lobbied by representatives from the real estate market. There was a general sentiment that a municipal structure would not necessarily facilitate the work of the SSIAA. Ultimately, the work of the SSIAA depends on the interest and support of the Trustees (Islands Trust) and the Electoral Area Director (CRD). Thus far, both Trustees and the Director have been supportive of the work undertaken by the SSIAA and the Islands Trust has played an important role in preventing extensive development on arable land or sensitive ecosystems.

Section IV: Discussion

Best Practices

Three best practices emerge as being key triggers to the SSI achievements described above: a) Tracking of relevant indicators, b) Using data to motivate and c) The AFP process and content.

Tracking of relevant indicators

This case study has highlighted and drawn from several reports that established baseline data about food and agriculture on SSI. These reports compiled information on, and brought together various facets of the SSI food system. According to the SSIAA, gaining a better understanding of the SSI food system is central to the overarching goal of promoting agriculture on SSI in ways that create synergies and positive spin-offs for the community as a whole. Plans presenting specific projects have drawn heavily from this data in order to illustrate the relevance of, and justify the financial input required by, the proposed initiatives. SSI food system data also informed the AFP development process. However, it is relevant to note that there exists no centralized tracking system so the accessibility of this data may be limited.

Using data to motivate

The data mentioned above has been used to motivate the SSI community to support SSIAA activities. In reference to the set of data that illustrated the drastic decline of livestock production on SSI, Patricia Reichert points out "The livestock study totally made people mad. They basically said 'we are going to fund an abattoir because we are sick of this' ". This illustrates the potential of indicators in bringing to light food issues, generating momentum within the community to address them, and promoting sustainable food systems.

AFP: process and content

Since the early 1990's, local governments in BC have been developing Agricultural Area Plans (AAP) or strategies with the support of the ALC and the Ministry of Agriculture (Ministry of Agriculture and Lands 2012). While SSI based its AFP on the framework made available by the Ministry, the SSI AFP was conducted through a particularly inclusive process that was instrumental in achieving community support and buy-in. SSIAA members indicated that a sense of pride has been associated to the AFP, in large part because it is believed to reflect the SSI community's needs and priorities. The participation of the community in the AFP Community Dialogues generated a certain sense of ownership. Good facilitators also contributed to the feeling that "the AFP right from the beginning was a class act" (Tony Threlfall, SSIAA member).

What is perhaps most remarkable about the AFP is the extent to which it is actually being implemented. SSIAA members believe that this is due in part because the AFP has given the community a common vision to focus on, rally around and channel energy and resources towards. In the current context of a relative "hype" around food systems, the three priority recommendations have

become a vehicle for community engagement, thereby allowing interest and excitement to translate into action. Contributing factors to the AFP gaining traction and generating momentum for the implementation of its recommendations include timing (the community was already mobilising around food issues) and content/buy-in (the community owns the AFP content because the process was inclusive). In addition, the SSIAA pointed out that the AFP put forward a timeline to prioritize key projects and provide a step-by-step approach to meeting the recommendations. The fact that this schedule is being followed has increased community confidence in the role and work of the SSIAA. Finally, another potential factor in the progressive and timely implementation of the AFP may relate to the fact that a Trustee (Islands Trust) was part of the AFP committee and supported the AFP implementation process early on.

Figure 5. An AFP Community Dialogue Session (obtained from Anne Macey)

Precursors

Precursors that may have contributed to the emergence of the best practices identified above include the existence of SSI community organisations working on food issues, including the Salt Spring Island Farmer's Institute, the Earth Festival Society, the SSIAA, the SSIAAC, the ING and the SSI Farmland Trust.

Greatest achievement

When asked to reflect on the greatest achievement to date, the SSIAA's answer was unanimous: there is more food being produced on SSI. There was no post-AFP survey of overall food production on SSI available when this case study was conducted. However 2006-2011 data obtained from the Canadian agricultural

census (see "Current Situation") shows an increase in the number of farms and farm operators on SSI whereas both farms and farm operators declined in BC and Canada. Although no direct correlation between the amount of food produced on SSI and the number of farms and farm operators can be demonstrated at this point, it is possible that the increase in the number of farms and farm operators will result in more food being produced on SSI.

Replicability

SSIAA members believed that SSI's lessons learned and best practices were applicable to other communities. There was a general sense that agricultural communities throughout BC were facing similar challenges and that the processes and projects developed by the SSIAA and the SSI community may be replicable in these other contexts. However, the fact that SSI is an island is a unique and defining community feature that may have certain implications in terms of replicability. For example, Pat Reichert points out that "self-defining ourselves as a community is in some ways easier because we are on an island". In addition, ferry or plane transportation exacerbates the costs of food and agricultural inputs on SSI, which may make the idea of being completely or partially food sufficient particularly appealing. Physical distance to the mainland may also have the effect of increasing the feeling of vulnerability to external events (i.e. natural disasters, peak oil, other) of SSI residents, thereby reinforcing the existing penchant for self-sufficient lifestyles. SSI's relatively long agricultural history and tradition, as well as the presence of local champions[25] are other factors that may distinguish SSI from other agricultural communities.

[25] Anne Macey, chair of the SSIAA was awarded the Islands Trust Stewardship Community Award on June 2012.

Section V: SSI and Food Sovereignty

"The concept of food sovereignty is applicable to the Salt Spring Island situation in that it recognizes the interest and need for more local control. Its application is also congruent in that it can occur at a variety of scales starting at the local or community level and depending on interest and capacity can address regional, provincial, national or international issues"-SSI Area Farm Plan

As demonstrated in section I, various levels of governance are impacting Food Sovereignty on SSI. Some governing entities have supported (albeit in a limited fashion) the elaboration of initiatives advancing SSI Food Sovereignty by, for example, providing funding for reports that led to key initiatives. In other instances governing bodies introduced policies, such as the new MIR regulations, that undermine Food Sovereignty by primarily addressing the needs of agri-business and being unsupportive of SSI small-scale farming. As demonstrated below, the best practices and experiences that emerge from the SSI case study can be associated with all six pillars of Food Sovereignty.

Pillar One: Focuses on Food for People

Among other uses, the data collected in the reports referred to in this case study have been used to raise awareness regarding SSI's geographical vulnerability and motivate the community to address related issues. As an island highly dependent upon imported food and energy, a central concern of the community is to ensure that SSI increases its food security by becoming more agriculturally self-sufficient. As such, SSI is focusing on food for people, the first pillar of Food Sovereignty, which puts the right to sufficient, healthy and culturally appropriate food for communities at the centre of its agricultural and food policies. By generating and disseminating food and agriculture related data to promote greater

food independence and assert self-determination, SSI is also rejecting the proposition that food security is solely dependent upon the agri-business model.

Pillar Two: Values Food Providers

The mission of the AFP is to make agriculture on SSI a healthy, viable and culturally supported endeavour. The inclusive process by which the AFP was developed was designed to value and incorporate the contributions of the agricultural community. All three key recommendations of the AFP aim to support food providers: 1) By working to implement the AFP and engaging in advocacy the SSIAA is helping protect and advance the livelihoods of SSI farmers; 2) By making the Fulford Property available to the community through a community garden and a farm incubator program the SSI Farmland Trust is valuing food providers by supporting them in accessing to land and developing farming businesses; and 3), By establishing community facilities that facilitate and support the expansion of agricultural activities on SSI.

Pillar Three: Localises Food Systems

The development of agricultural infrastructures such as the abattoir, the local produce centre, the composting facility and the incubator program on the Fulford Property localises agricultural activities, thereby bringing consumer and producers spatially and socially closer to one another.

Pillar Four: Puts Control Locally

Tracking and disseminating food system indicators helped set in motion processes that are aiding the community, including both consumers and producers, to reclaim control over the local food system. The inclusive process by which the AFP was developed is an example of Carney's (2012) participatory planning contexts that characterizes Food Sovereignty. The formation of the SSIAA led to

the revision of the OCP to make it more supportive of agriculture. This is consistent with the notion that Food Sovereignty calls for the capacity to shape food policy at all levels (Patel, 2009).

Pillar Five: Builds Knowledge and Skills

Through the community garden and the farm incubator program on the Fulford Property the SSI Farmland Trust is building the knowledge and skills of current and future food providers by providing them with a space to experiment and learn. Inclusive community planning processes and the elaboration and dissemination of reports has helped generate knowledge about the SSI food system. This is enabling more effective development and management of the SSI local food system.

Pillar Six: Works with Nature

By including local food production in its strategy to reduce its GHG emissions, SSI is demonstrating the synergistic relationship between the third and sixth pillars of Food Sovereignty, namely to localise food systems and to work with nature. SSI has used island-wide GHG emission data to establish specific targets regarding the localisation of food systems and is working with nature in the sense that it is seeking to diminish its contribution to climate change and reduce its dependence on an energy intensive model of food production that negatively impacts global ecosystems. The proposed anaerobic digestor, which would use the offal from the abattoir to generate biogas energy and fertilizer, can be seen as the community's approach to embracing the "waste is food" ecological principle. The partnerships of individual SSI farms with The Land Conservancy (TLC), a non-profit charitable BC Land Trust protecting natural habitats and farmland, and the high percentage of produce farmers using organic practices may point to the integration of ecosystem protection to agricultural production on SSI.

Small farms, when optimized through an agroecological approach, are more productive, more profitable, and less vulnerable to climate change and play an important role in maintaining biodiversity, thus forming the basis of Food Sovereignty (Altieri, 2009). As mentioned in the breeding ground section, SSI has a much higher proportion of small farms (10 acres or less) than the rest of the province and the country, another community feature that can be related to the sixth Food Sovereignty pillar.

St-Camille case study

Methodology

St-Camille is a rural community well known for reversing its population decline. Several students[26], writers[27] and journalists[28] have reported on St-Camille's global and integrated revitalization strategy. It should be noted that this case study focuses on elements relevant to Food Sovereignty and does not provide a comprehensive description of St-Camille's endeavours. The St-Camille case study is based on the review of various reports and published works, phone and in-person interviews with: Joël Nadeau president and resident of the Rang 13 coop, spokesperson for the Mine de rien committee and communication coordinator with the Centre d'interprétation du milieu rural (CIMR); Sylvain Laroche, founder of Le P'tit Bonheur and Le groupe du coin and manager of the demographic development project; Katherine Gouin, community development agent with Inode Estrie; Olivier Brière, coordinator with Inode Estrie and project manager of the Salon sur la diversification agricole; Caroline Dufresne, project manager with Inode Estrie; and, Nadine Bachand, rang 13 resident and project manager for agriculture and pesticides at Équiterre. Interviews were conducted and transcribed in French. In-text citations were translated to English. Unless specified otherwise, the statistical data for St-Camille, the Estrie region (also

[26] See Champagne's MA thesis titled " Développement écovillageois et renouvellement de l'habiter rural: Le cas de St-Camille au Québec " (Champagne 2008)

[27] In 2011 ÉcoSociété published Jocelyne Béïque's book titled " St-Camille, le pari de la convivialité " describing St-Camille's history and accomplishments (Béïque 2011).

[28] The small municipality has received significant media attention. St-Camille was featured in Radio Canada's radio show " Bien dans son assiette " and television show " La Semaine Verte ", while an article featuring St-Camille's innovations was published in Le Monde Diplomatique (Cassen 2006).

known as Les Cantons de l'Est and the Eastern Townships), Québec and Canada presented in this case study has been obtained from Statistics Canada 2006 and 2011 Censuses of Agriculture[29] as well as the 2011 Population Census[30].

Section I: Background

Community Profile

Officially constituted in 1860, St-Camille covers an area of 83,60 km^2 (MAMROT 2013) and a population of 511 in 2011, an increase from 448 in 2006. It is situated in the Estrie region in the province of Québec, which is characterized by a hilly landscape and a subhumid, continental temperate climate (Chalifour 2010). St-Camille is located in the Plant Hardiness Zone 4a (Agriculture and Agri-Food Canada 2013). The agriculture and environment sectors account for the majority of local employment (Dufresne 2012).

Agriculture in St-Camille

History

Settled around 1850, St-Camille was one of the first francophone communities established in the Estrie region (Béïque 2011). At the beginning of the 20th century the community had more than 75 agricultural producers, two mills (for wood and grain), a butter dairy, a cheese dairy, a bakery, an agricultural cooperative, abattoirs, three grocery stores, two hardware stores, three garages, a tin shop, an agricultural machinery concession, as well as several other enterprises (Dufresne 2012). The St-Camille population reached 1290 citizens in 1914 but dropped to 610 in 1972 and 450 in 1984 (Béïque 2011). This population decrease

[29] Available at http://www.statcan.gc.ca/ca-ra2011/index-eng.htm

[30] Available at http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E

has been attributed to industrialization, urbanization, the concentration of services and the transformation of agriculture, all of which drove migration from the countryside to the cities. As several enterprises and services disappeared, the socio-economic fabric of the community weakened (Béïque 2011).

Current Situation

Many St-Camille farms are still occupied by the descendants of the first European settlers (Béïque 2011) and 92% of St-Camille's territory is zoned agricultural (Dufresne 2012). The number of farm and farm operators, the average age of operators and the farm size could not be assessed overtime due to the unavailability of 2006 Statistics Canada Census of agriculture data for St-Camille. The average age of farmers in 2011 (48.6) was lower than the national average (54), the provincial average (51.4), and the regional (Estrie) average (51.5). In 2011, 12% of St-Camille farms were 69 acres and less, a small proportion compared to provincial (24%) and national (22%) statistics. Twenty-two or two-thirds of St-Camille's farms covered a total area between 70 and 399 acres. In St-Camille, aside from a few relatively diversified and/or organic farming operations, conventional agriculture is the dominant model with dairy and cash cropping being the most common productions.

Local Governance

Under the provincial law pertaining to municipal land use (LOTM), MRC's (Municipalité régional de comté) are administrative entities bringing together municipalities within a given territory. St-Camille is one of the 7 towns and villages part of the Des Sources MRC. As per the QC law pertaining to urban planning and development (LAU) MRCS's are responsible for the regional management of local communities. This includes overseeing planning and development and ensuring conformity with provincial laws and regulations

(MAMROT 2012b). According to the LAU, MRC's whose territory comprises land zoned agricultural are required to set up an agricultural planning advisory committee (CCA). The mandate of the CCA's is to study and make recommendations regarding land use planning concerning agricultural land, activities and environmental considerations (MAMROT 2012a). The St-Camille municipal council is composed of one mayor and six councillors elected every 4 years.

Provincial Legislation

Provincial entities that regulate and impact food and agriculture in Québec include the MAPAQ (Ministry of Agriculture, Fisheries and Food of Quebec), the MDDEP (Ministry of Sustainable Development, Environment and Parks), the MAMROT (Ministry of Municipal Affairs, Regions and Land Occupancy), the RMAAQ (the provincial economic regulatory agency) and the CPTAQ (Québec commission for the protection of agricultural land).

In 1978 the Québec government adopted a law to protect valuable agricultural land and ensure the continuation of agricultural activities in the province (LPTAA). On territory identified by provincial decree, the LPTAA prohibits using the designated land for purposes other than agricultural, removing arable land, felling maple trees in a maple grove and parcelling agricultural properties. In 2005, the total area of Québec's agricultural zone exceeded 63 500km^2.

In 1979, the "Loi sur l'acquisition de terres agricoles par des non-résidants" was introduced to regulate the amount of land that can be purchased by non-residents as a way to prevent agricultural land speculation (CPTAQ 2010). The mandate of the CPTAQ is to oversee the application of the LPTAA, evaluate requests and grant authorizations for using agricultural land for activities other than

agricultural production and zoning modifications, deliver permits for arable soil removal and counsel the provincial government on matters relating to the protection of agricultural land (CPTAQ 2007). Enacted in 2001, law 184 modified the LPTAA and the LAU, consequently further protecting agricultural producer's right to produce by limiting the legislative capacity of municipalities to regulate agricultural practices on their territory. Law 184 also introduced article 59 whereby MRC's can present a collective demand to the CPTAQ for residential functions to be introduced to properties zoned agricultural (CPTAQ 2006).

L'Union des Producteurs Agricoles (UPA) is a producer union representing 43 000 Québec agricultural producers. As the government accredited organisation representing the interests and serving as the official voice of agricultural producers, the UPA can intervene in any requests presented to the CPTAQ. In the case of a collective demand submitted to the CPTAQ, residential development on a property zoned agricultural is only granted if supported by the UPA. All Québec farmers are required to join the UPA.

In June 2006 the "Commission sur l'avenir de l'agriculture et de l'agroalimentaire québécois" (the Commission on the Future of Agriculture and Agri-Food in Québec) was formed to identify issues facing, examine the efficacy of policies and programs targeting, and formulate recommendations regarding Québec's agriculture and agro-food sectors. In January 2008 the Commission published its results in what came to be known as the Pronovost report. The issues identified by the report included decreasing agricultural revenues, unprecedented producer debt-loads, increased costs of financial aid programs, challenges in transferring farms to the new generation, market costs that do not reflect increasing production costs, relative lack of consumer confidence in the sector, increased pressure to further liberalize agricultural markets, producers

experiencing increased psychological distress, weakened growth prospects and a highly structured and concentrated food distribution system.

In 2006 the Québec government adopted the 2007-2014 national rural policy ("Politique nationale de la ruralité") and implemented the Pact Rural agreement between the provincial government and MRC's whereby communities were funded to promote the dynamic occupation of rural areas. In 2009, following the recommendation of the Pronovost report the MAPAQ launched the first pilot project concerning the elaboration of the first agricultural zone development plan ("Plan de développement de la zone agricole", PDZA). PDZA's are conducted by and for MRC's, with a total of eight PDZA's having been conducted by 2011. As of the fall of 2013, the MRC des Sources was finalizing the development of its PDZA.

In the spring of 2013, the Marois government introduced a Food Sovereignty Policy allegedly as a response to the Pronovost report. The Québec Food Sovereignty Policy's was well received by the UPA and civil society organizations, with organizations like Équiterre (a prominent environmental non profit organization) applauding the inclusion of local food procurement for ministries and public sector organizations, pesticides and GHG reduction, and the protection of agricultural lands situated in urban and peri-urban environments (Dehoux 2013). However, the Union Paysanne argues that the Québec government is misappropriating and instrumentalizing Food Sovereignty language. In the view of the Union Paysanne, the policy does not help advance Food Sovereignty in Québec because it fails to democratize the food system and implement key Pronovost report recommendations (such as dismantling the UPA monopoly on farmer representation) (Union Paysanne 2013).

La Financière Agricole is a provincial agency providing financial and risk management tools (crop insurance, farm income stabilization insurance, financial assistance for establishment in agriculture, and more) in the agro-food sector. A $75 million investment fund for new farmers (the "Fond d'investissements pour la relève agricole", FIRA) was launched in 2010 by the Québec government, the solidarity fund of the federation of workers of Québec ("Fonds de travailleurs et travailleuses du Québec", FTQ) and the Desjardins regional and cooperative capital ("Capital régional et coopératif Desjardins"). FIRA is provides farm down payment support and advantageous farm rental opportunities.

Provincial legislation and St-Camille

In late 1990's Estrie residents witnessed the proliferation of industrial hog farming. The expansion of this production model was met with resistance from St-Camille citizens and elected officials. Although law 184 meant that municipalities could not limit or regulate industrial hog farming, the community discussed the social consequences of this production model, which generated a debate around the type of agricultural territorial occupation desired by St-Camille residents. The debate polarized the proponents of industrial agriculture against proponents of an agriculture model based founded on social, ecological and economic diversity (Béïque 2011). In 2002 Law 103 implemented a province-wide moratorium on the deliverance of permits to operate a pork farm. The moratorium was lifted in 2004 and new regulatory measures were introduced in 2006.

Le P'tit Bonheur

Le P'tit Bonheur is St-Camille's flagship community facility. Founded in 1988 in the old general store, Le P'tit Bonheur de St-Camille is a community non-profit active in four areas: community development, performing arts, visual arts and a

training centre. The training centre is home to the centre for the interpretation of the rural environment (CIMR), which coordinates demographic and rural development research. Le P'tit Bonheur also hosts a monthly community meal and a meal-on-wheels program. On Fridays, Le P'tit Bonheur sells volunteer-made pizzas cooked on site for lunch or frozen for take-out.

St-Camille and Dégnékoro

In 2002 the Carrefour de solidarité international de l'Estrie (a group of regional organizations working in the field of international solidarity, justice and sustainable development) partnered St-Camille with Dégnékoro, a community association regrouping several agricultural villages in Mali. This intercultural exchange program was developed around the objectives of learning from one another and building friendships. Key learnings have included enhanced awareness of the importance of letting projects and relationships evolve at their own pace, attaining an international perspective on community issues, and the value of sustaining friendships and networks (Laroche 2013a; Gouin 2013).

Section II: Key Achievements

In 2003 the Corporation de développement socio-économique de St-Camille (herein the "CDSESC"), a non-profit community development organization founded in 1994 by the municipality, was mandated to develop and implement an action plan to increase its population by 10% in 10 years. The CDSESC developed a strategy involving a number of specific initiatives and promoting the active networking of interest groups within St-Camille and with other MRC des Sources municipalities (Dufresne 2012). By 2011, the St-Camille population had reached 511 residents, a 14% increase from 2006(Dufresne 2012). Initiatives designed to: 1) promote agricultural diversification; 2), diversify the real estate

offer; and 3), increase community food autonomy, have contributed to St-Camille surpassing its demographic objective.

Initiative #1: Promote agricultural diversification

Project description: Le salon régional d'animation sur la diversification agricole de St-Camille (the regional conference for agricultural diversification, herein the "salon") was founded in 1999 by the CDSESC.

Mandate of the salon: Create a space to reflect on agricultural diversification and the future of agriculture.

Salon background: Two conditions affecting the future of agriculture helped shape and garner community support for the salon: 1) a productivist and monoculture-oriented model was being developed at the detriment of family farms; and 2), a growing disconnect between the countryside and the village, whereby both agricultural inputs and outputs no longer contributed to the social and economic interaction between, and fabric of, farms and the village (Brière 2013). Agricultural diversification was perceived as a way to bring back a type of agriculture that favours a local consumption model. Olivier Brière, salon manager and coordinator with Inode Estrie (a local organization welcoming and supporting the establishment of young people), explains: "…diversity is really health, at both the economic, environmental and social level, and it is around this notion that the salon was launched" (Brière 2013). In the St-Camille context, agricultural diversification calls for occupying the agricultural territory with individuals and enterprises that operate intensively on small land parcels. It is also about investing in types of production that allow more people to settle on the territory, individuals whose business models are designed around local consumption, the creation of new specialty products and agro-tourism (Brière 2013).

Ongoing activities of the salon: Currently held on a biannual basis, the salon sheds new light on how agriculture is linked to sustainable ways of living,

producing and consuming. For example, the first salon explored strategies to support the new farming generation whereas a later edition focused on renewable energy in the agricultural context. The salon's scope is regional: Participants are primarily residents from St-Camille and the surrounding region but guest speakers are recruited throughout the province and beyond. Tangible outcomes of the salon include the creation of La Clé des Champs (see below). Although the organization of this event is time and energy consuming, the salon is believed to have positive spin-off effects. For example, the salon has played a role in attracting new enterprises such as Natur'Eau-Lac, which specializes in protecting and restoring aquatic habitats, including the stabilization and erosion control of embankments and the installation of riparian buffer strips and wind breaks in the agricultural environment.

Initiative #2: Increase community food autonomy

Project description: Creation of the Coopérative de Solidarité la Clé des Champs the solidarity coop[31] La Clé des Champs, herein "La Clé des Champs").

Mandate of La Clé des Champs: The objectives of the coop were to: support the new farming generation by providing access to collective property; develop structuring, innovative, and cooperative initiatives to promote a diversity of new farming enterprises; support the involvement of the local community in safeguarding the agricultural and rural patrimony; and, contribute to the transmission of knowledge (Béïque 2011). Grounded in a local development perspective, founding principles of La Clé des Champs included job creation and

[31] A solidarity coop brings together members who benefit from or support the services offered by the coop and members who are employed by the coop. A solidarity coop in the agricultural context therefore brings together stakeholders that may at first appear to have opposing interests, namely consumer members, producer members and worker members.

the production and availability of products derived from local agriculture and forestry (Lair 2011).

La Clé des Champs background: La Clé des Champs was established due to: 1) the desire of citizens to put into action ideas explored during previous salons, and 2), the exploration of citizen responsibility regarding community vitalization during a short course in applied ethics offered by Sherbrooke University (primarily delivered at Le P'tit Bonheur). Residents formed a group interested in the development of a community market garden as a means to achieve greater community food autonomy. A community leader made his land available to the group who proceeded to collectively remove rocks from the fields and grow potatoes that were then sold to community members. The Clé des Champs coop was officially formed in 2003, shortly after this first experience of community driven agricultural production (Lair 2011).

Ongoing activities of La Clé des Champs: In 2011 the cooperative operated on 7 rented acres, had acquired several agricultural assets, hired 5 employees and obtained financing from Québec's provincial employment agency (Emploi Québec), the local development centre (CLD), the society for the development of collectivities (SADC) and the Caisse Populaire Desjardins (Lair 2011). La Clé des Champs has marketed its produce through Équiterre's CSA network (the Montréal-based environmental non-profit promotes the CSA model in Québec), an on-site seasonal weekly market, a local grocery store and a neighbouring organic farm. In 2004 the coop grew another branch focused on gathering non woody forest products, "Cultur'Innov", which is now a separate cooperative entity offering agroforestry consulting services. In 2012, La Clé des Champs was sold to two young farmers, thus becoming a private enterprise which nonetheless continues to play a central role in St-Camille's food autonomy.

Figure 6. La Clé des Champs in February 2013

Initiative #3: Diversifying real estate opportunities

Projects description: Two innovative real estate development projects, the Parc Agrovillageois (loosely translated as the "Agrovillage Parc", herein the "Parc Agrovillageois") and the Fermettes du Rang 13 (loosely translated as the Rang 13 Farmsteads, herein the "Rang 13") were developed.

Mandate of the Parc Agrovillageois and the Rang 13: Attract newcomers by diversifying real estate opportunities.

Ongoing activities of the Parc Agrovillageois and the Rang 13: St-Camille's assets have long included a rich community and cultural life. Although many families expressed a general interest in moving to the community, available properties on the real estate market were not selling. St-Camille thus hired an assistant coordinator to develop attractive real estate development projects in collaboration with the CDSESC.

The Parc Agrovillageois: Initiated in 2004, the Parc Agrovillageois project aimed to establish a development model attractive to young families. Project manager Sylvain Laroche explains "we noticed that people liked to settle around a lake, so we thought why not settle around a garden, (…) a food pantry?". The project was thus designed with the dual advantage of being close to the heart of the village and open onto the agricultural landscape. Early on, the community was enthused by the project because it provided an appealing alternative to the urban and suburban models (Laroche 2013b). To conserve agriculturally productive land while using its nourishing and agricultural characteristics to attract community members, the development was to be situated within the forested borders of cultivated lands used by La Clé des Champs. A plan to divide a property zoned agricultural adjacent to La Clé des Champs into 17 separate forested parcels of 1 acre was devised. A collective demand (under article 59 of law 184) to modify the zoning from agricultural to non-agricultural was submitted to the tripartite evaluation process involving the MRC, the UPA and the CPTAQ. The project was not well received by the UPA who argued that the de-zoning would fracture and expand the development of the village and set a bad land-use planning precedent (Laroche 2013b). The project as first envisioned did not gain approval (see the refused parcels in Figure 7.) but a compromise was eventually struck, whereby land that had previously been de-zoned in the middle of the agricultural property for farm buildings was converted back to agricultural zoning in exchange for de-zoning the forested borders. Eight 1-acre parcels were granted to the Parc Agrovillageois development. The private land adjacent to the project is held in a trust and can be rented for agricultural production at a relatively low-cost. Parc Agrovillageois members own the properties upon which their homes are built and the neighbouring land trust is amenable to securing long-term tenure of arable land for residents interested in starting a small-scale agricultural enterprise. In February 2013, all properties were sold and one house built. The properties have

not been occupied as fast as was anticipated in part because the CPTAQ's decision to grant only a portion of the land resulted in the dispersal of the individuals rallied around the project. According to Laroche, signs of effervescence indicate that the Parc Agrovillageois continues to evolve in accordance with its novel vision of building around a garden (Laroche 2013a).

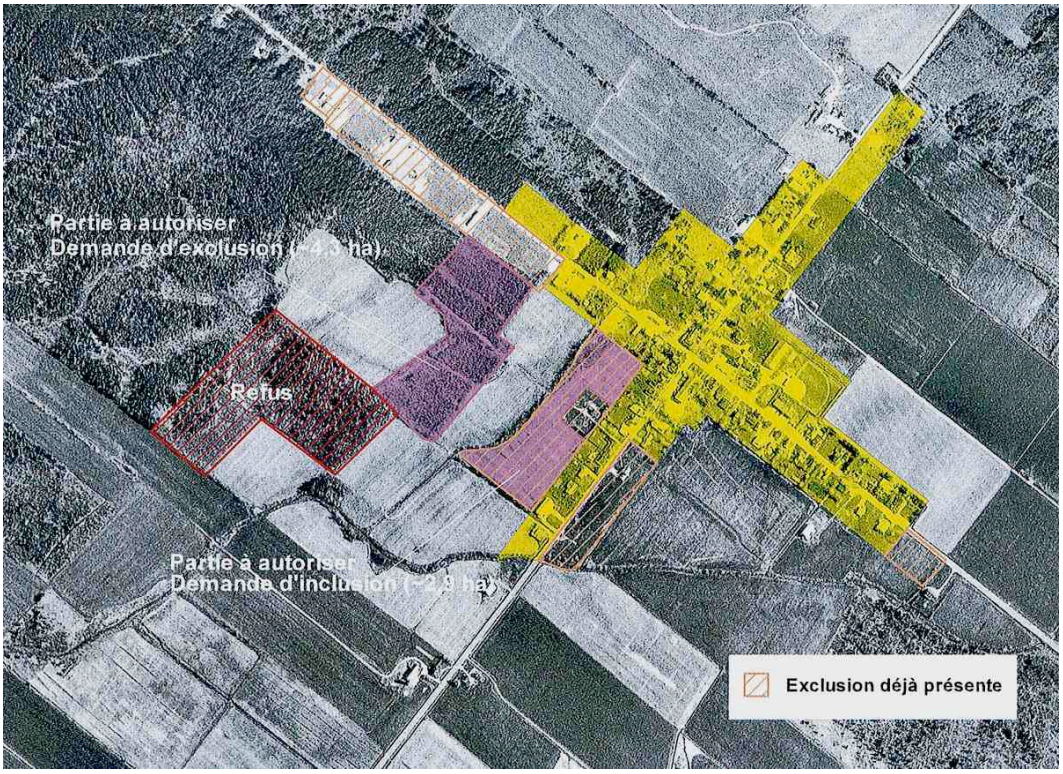

Figure 7. Map of the Parc AgroVillageois (Pink areas show the rezoned parcels and the red area shows the refused parcel. The yellow area shows the St-Camille village.)

The Rang 13: In 2004 a locally-owned 300 acre property zoned non-agricultural was parcelled in twenty-five 4 to 17 acre lots to become a cooperative development project making small scale agricultural and forestry enterprises

financially accessible and attractive to newcomers. The St-Camille municipality and the CDSESC played a central role in conceptualizing and coordinating the project (including marketing, messaging, facilitating meetings and conducting site visits) while the P'tit Bonheur and the CIMR welcomed visitors, provided meeting space and contributed coordination support. The municipal council required that individual lots be developed with four season permanent residences (no cottages), be built in no more than 5 years and host small-scale agricultural or forestry projects. In 2007 the core group formed the Rang 13 solidarity coop. The project's legal status as a coop facilitated negotiations with lending entities, entrepreneurs and organizations such as Hydro-Québec and the Canada Mortgage and Housing Corporation (CHMC) (Dufresne 2012). The coop du Rang 13 eventually drafted a charter based on the economic, environmental and social/cultural pillars of sustainable development, which re-iterated the project's emphasis on agroforestery and encouraged the use of organic agricultural methods.

At costs reflecting the size and the features of individual lots, coop members purchased the land collectively. The cooperative did not receive external financial support to purchase the land, build roads or install electricity and telecommunication infrastructures. The CDSESC and the municipality collaborated to develop the vision, secure funds to upgrade access roads and develop various support programs and services for young families. Rang 13 members were financed by local Desjardins credit unions and the CHMC. At the provincial level, the Pacte Rural program provided $30,000, the MAMROT upgraded two access roads (valued at $80 000) and Québec's transportation ministry widened a bridge. Several local development organizations developed projects supporting the integration of newcomers (Dufresne 2012). Rang 13 investment shares of $1000, $2500 and $5000 were also made available to

individuals, enterprises and organizations (MRC Mes Sources 2013). As a result of the cooperative structure and the new partnerships, all lots, including infrastructure costs, were sold below market value (Nadeau 2013a).

The development project actively promoted green and alternative building practices. Upon recommendation of the municipality's advisory planning council, the construction of strawbale houses and sedimentation basins for grey water treatment were approved. The CDSESC coordinator convened meetings with alternative energy, ecological construction and wastewater treatment experts for Rang 13 members (Béïque 2011). The Rang 13 is located 7 kilometres from the town centre, in the heart of a small valley separated by the Nicolet River. A 50-acre park created by the coop protects the river's shores and wetlands.

In 2013, the project is said to have attracted 25 families from different regions, 75% of which were between 25 and 35 years old. Upon completion, more than 80 individuals are expected to live on site, a 17% increase of St-Camille's population (MRC Mes Sources 2013). The original vision of the Rang 13 project has not yet fully materialized since the majority of residents do not derive their income from, or professionally engage in, small scale agricultural and forestry initiatives. Rang 13 residents however contribute to the local economy through the creation of small enterprises, some of which are related to the food and forestry sectors. For example, the Rang 13 is home to Natur'Eau-Lac, a home-made gelato business, a nursery and Rustique Apiculture—a queen bee rearing enterprise (Nadeau 2013a). La Cueillette ("The Harvest") is a Rang 13-based purchasing group distributing bulk dry organic goods, produce, meats, dairy products, bread and honey in the basement of Le P'tit Bonheur. Sourcing quality products locally is central to the operations of La Cueillette, whose services are also available to non Rang 13 members (Nadeau 2013b).

Section III: Key Barriers and Emerging Challenges

Below is a compilation of challenges relevant to St-Camille's ongoing attempts to invigorate and diversify its agricultural sector in light of the community's concern with the devitalisation of the countryside.

Growing a new generation of food producers in the context of a declining population and a shifting agricultural context

"St-Camille's population was on the decrease for 90 years…reversing that trend is no small feat for a rural agricultural community" - Sylvain Laroche, demographic development projects manager

Although the Estrie population is growing, the increase is largely composed of people about to or already retired who are not seen as a long-term solution to demographic decline and maintaining a dynamic agricultural sector. Developing strategies to attract new contributors to the agricultural sector raises questions about the type of food production model desired by communities. In St-Camille, ensuring a healthy coexistence between the aspirations of the conventional and the emerging alternative agricultural model is a challenge. On the one hand it is believed that to attract a new generation of farmers the conventional model must evolve to solve some of its systemic issues. The drive to modify the conventional model is tempered by the community's recognition that the livelihoods of numerous conventional producers are embedded in the existing system. In part out of respect and care for these producers, some would like to see the existing conventional model evolve as opposed to being altogether rejected. On the other hand community members want to explore and promote alternative approaches to food production because there exists a growing realization of the need for a radically different approach to agriculture. In this shifting agricultural context, both the conventional and the alternative models are facing their own set of

challenges. The question thus becomes how to create or use available spaces that foster a type of dialogue in which everyone can explore options and develop solutions together as opposed to polarizing proponents of each model (Laroche 2013a).

Balancing the protection of agricultural land with maintaining vibrant communities

"…we have the right to produce and the right to reside. And these two rights can confront one another"-Sylvain Laroche, demographic development projects manager

Small rural villages such as St-Camille face the challenge that residential properties on the real estate market are commonly perceived as not well situated (i.e. houses are often built close to main roads, poor solar orientation, lack of natural features, etc). While properties zoned agricultural may have attractive real estate features, they are protected under Québec legislation so as to maintain their agricultural functions. At the same time, agricultural producers benefit from a thriving rural community, where a sizable and stable population help sustain proximity services such as schools, health centres, grocery stores, etc. Balancing the preservation of agricultural land with maintaining vibrant rural communities is a critical challenge: failing to maintain this equilibrium can put both components at odds, thereby creating community and land use tensions. For example, the CPTAQ was supportive of and interested in the Parc Agrovillageois project but the UPA opposed the project as originally conceived (Laroche 2013a). Because the UPA primarily represents and defends the interest of the agricultural sector, its priorities of are not aligned with St-Camille's efforts to increase its population. Under the current provincial legislation, rural communities are restricted in their capacity to develop alternative land use models on properties zoned agricultural,

even in cases where food production is a central and defining feature of the development project.

Land access for the new farming generation

"The main problem here is zoning. People our age don't have the means to buy a large property and we cannot de-zone, we cannot divide in ways that make sense" Katherine Gouin, community development agent with Inode Estrie

A key barrier for the region is land access for the new generation of agricultural producers whom typically have limited financial means to purchase the often-large agricultural properties available. Although this generation may be capable and willing to develop a business on smaller acreages, dividing agricultural properties is a significant challenge and a limiting factor to the establishment of new agricultural producers. Article 29 of the LPTAA includes a procedure that allows the division of large agricultural properties into smaller agricultural lots but building houses on these smaller lots is not permitted. Fragmenting agricultural land and making it more financially accessible for new farmers must be accompanied by the capacity to build homes if it is to help rural communities densify territorial occupation and enable farmers to live where they farm. Accessing capital and financing is another challenge. Realizing a business plan that justifies, from the perspective of a farming project's ability to generate income, the fragmentation of an agricultural property, is seen as a difficult task under current regulations.

Dealing with pressure from the resource extraction industry

"The gold mine project hovering over our heads, that too is menacing our agriculture" -Joël Nadeau, spokesperson for the Mine de rien committee

In early 2011, Bowmore Exploration Ltd announced it would begin gold exploration activities in St-Camille, where it holds mining claims. Under Québec's law on mines, a mining company granted a right to exploit from the Québec government can potentially expropriate land from its owners to develop a mine. Interviewees described the impact of mining on agricultural land as a key issue in part because it can result in the loss and/or pollution of agricultural land, which in turn has repercussions on food autonomy. In February 2011 the Mine de rien committee was formed in St-Camille to address this threat. At the provincial level, the committee is working to ensure that the mining legal framework adequately protects the interests of communities and the environment. At the local level, the committee is seeking to establish a balance of power with the mining industry by informing citizens and defending their right to collectively choose the territorial development model they believe is appropriate for their community (Comité Mine de rien 2013). On February 7th 2011, St-Camille passed a resolution calling for the rejection of any mining, oil or gas project that would undermine the growth of the agricultural sector or any other economic, social, and environmental activity within the limits of the locality (Comité Mine de rien 2013).

In the early stages of mobilizing resistance the lack of community evaluation and communication tools emerged as an important challenge. Brière explains that "…communities don't necessarily have the tools to manage situations where resource extraction industries want to either explore or develop an industry such as mining …we need tools to evaluate the impacts of projects of this nature so that we can better communicate with the population and the developer how a project may or may not fit with our social, economic and environmental priorities" (Brière 2013). This points to a need to support communities in

delineating social acceptability conditions and establishing evaluation parameters for proposed projects.

Promoting agricultural diversification in light of unsupportive agricultural provincial policy and institutions

Agricultural policy, institutions and programs are not necessarily supportive of food autonomy and agricultural diversification as envisioned by St-Camille. For example, as a coop, and like many small-scale QC farmers, la Clé des Champs was not admissible to La Financière Agricole support programs (Lair 2011). The UPA controlled supply-management system is also seen as having the potential to obstruct agricultural diversification in St-Camille. Although supply management has benefits (such as ensuring a steady revenue for producers), the control of this system as currently exercised by the UPA can undermine the development of new farming enterprises or constrain the operations of existing ones (Brière 2013).

Section IV: Discussion

Best Practices

The co-construction of knowledge: Bridge building in a learning community

The creation of spaces for dialogue has enabled St-Camille residents to build solidarity and address community issues. By intentionally fostering a learning community and cultivating openness toward one another and the outside world, St-Camille has expanded its set of resources for local development and developed new collaboration opportunities.

In August 2012 Le P'tit Bonheur and the research centre on social innovations (CRISES) at the Université du Québec à Montréal (UQAM) obtained MELS funding to develop a series of knowledge sharing workshop bringing together researchers and St-Camille citizens. The professor's theoretical knowledge

introduces a new perspective on experiences and practices, whereas the experiential knowledge of citizens nourishes the professor's reflections and analysis (Récits-Recettes 2013). By bridging the work of researchers and practitioners, the workshops have fostered innovation and helped identify solutions to various issues (Laroche 2013a). As Laroche emphasizes, "We must keep learning because local development is complex (…) It is by working together that we can co-construct solutions" (Laroche 2013a).

In terms of agriculture, St-Camille strives for a positive coexistence between conventional and emerging agricultural models, and between agricultural producers and other community members. In reference to this collaboration, Laroche points out that "it is reassuring to see people who seek to build bridges because it's much easier to build a wall than to build bridges. Building bridges requires sound engineering, lots of work at the conception level and necessitates a more integrated vision of things". The salon stands out as a space for dialogue that encourages agricultural producers to share knowledge and expertise. The existence of the Parc Agrovillageois is attributed to dialogue and compromise.

Food autonomy and agricultural diversification in the St-Camille strategic plan

In 2008 the MRC Des Sources asked member municipalities to develop their own local development strategic plans as required by the Pacte Rural. The St-Camille strategic plan was developed in consultation with the community. Input was solicited through a questionnaire sent to each household and during a public event. St-Camille's 2008-2014 sustainable development strategic plan "Vivre et Agir Ensemble" (Living and Acting Together) articulates a vision of a rural territory inhabited by a welcoming, learning, innovative and solidary community which develops its resources so as to promote greater autonomy, offers the services needed and favours responsible economic development in a quality

environment (Municipalité du Canton de Saint-Camille 2008). Explicitly included in this plan is autonomy in relation to the community's food supply and agricultural diversification as a means to increase the availability and diversity of local products. The term "communauté nourricière" (nourishing community) is another central element of the plan. It evokes considerations that include several aspects of community autonomy such as proximity services, employment, solidarity amongst citizens, a healthy environment, the capacity to exploit local natural resources, and a reduced dependency on external suppliers (Municipalité du Canton de Saint-Camille 2008). Featuring food autonomy and agricultural diversification as key themes of the 2008-2014 strategic plan is believed to have consolidated the foundation necessary for the initiatives described in Section II.

The CDSESC as a long-term community-municipality partnership

The CDSESC develops projects, initiates community-based reflection processes, and accompanies projects emerging from the community. Described as a partnership between the community and the municipality, the CDSESC has been instrumental in founding and/or supporting the initiatives summarized in Section II. The CDSESC maintains, regardless of municipal governance turnovers, a continuous and steady presence in St-Camille. However, the municipality's ongoing support of the CDSESC was also said to be a key factor in articulating and bringing to life the community's vision. Elected representatives have helped secure financial assistance and provided the moral support essential to the CDSESC's capacity to fulfill its mandate. Caroline Dufresne, project manager with Inode Estrie, explains that "often the support from the municipality does not come in the form of big sums of money, but in terms of making a meeting room available, or providing physical, material or moral support….the municipality also fosters constant collaboration between organizations, and so in this sense it stimulates the synergy that materializes and the network that this collaboration

has created" (Dufresne 2013). The CDSESC's commitment to promoting food autonomy and agricultural diversification explains its active accompaniment of projects focused on these particular themes (i.e. the salon) and related topics (i.e. the management of natural resources in light of pressures from the mining industry) (Laroche 2013a).

Collective Entrepreneurship

St-Camille citizens have successfully brought together the social benefits of collective action and the power of the local economy to develop real estate projects, La Clé des Champs, and a local investment association. In the mid 90's four Saint-Camillois concerned with losing buildings and services central to community life formed a micro-financing initiative named "Le groupe du coin" (the corner group) to empower small investors to invest locally. The group invests its funds in ventures that directly benefit the community as opposed to maximizing profit. Laroche describes the investor group as a local capitalisation tool with modest means but a big, long-term impact. Although only small amounts are invested (each shareholder holds approximately $1200 in shares), the group, for example, has been central to the creation and ongoing support of Le P'tit Bonheur. Le groupe du coin (now nine shareholders) is both an example of, and serves as a simple and useful resource for, collective entrepreneurship in St-Camille.

La Clé des Champs is an example of what Laroche calls an intermediary model, where the fabric of an enterprise is simultaneously collective and private. Laroche explains: "…We need to find an intermediary model so that people can develop their capital and know that it will continue to belong to them while having a close and supportive community (…) if there had been no collective entrepreneurship to start La Clé des champs, I don't think it would exist today. Collective

entrepreneurship enabled its start-up. Eventually it attracted people who believe in collective entrepreneurship but who are also ready to invest and do things their own way, so as to have the best of both worlds" (Laroche 2013a). According to Lair (2011), the type of agriculture targeted by La Clé des champs was inseparable from community development goals. The solidarity cooperative model was particularly well adapted to the mission and objectives of the organization (Lair 2011). In Lair's view the existence of this collective entrepreneurship venture is the result of six success factors:

- The community was the departing point, not solely a resource, of the project, which spurred concrete supportive actions from community members.
- Mayors consistently supported the project.
- Shared values brought cohesion to the group and enhanced community participation.
- Participants had strong leadership skills as well as administrative and management experience.
- Partnerships and vertical linkages with financing institutions and other organizations or commerce were effectively developed early on.
- A strong social capital and a sense of attachment and belonging to the community characterize St-Camille (Lair 2011).

Collective entrepreneurship in St-Camille is impacted by internal and external factors. Dufresne points out that the combination of endogenous resources (e.g. the capacity to welcome visitors, the work of volunteers, project coordination, etc) and exogenous resources (e.g. networks at the supralocal, regional and national levels) brought the Rang 13 project to fruition (Dufresne 2012). Béïque argues that Rang 13 members conceptualized and realized a residential development project of simultaneously personal and collective nature (Béïque 2011). It is

believed that the participant's strong collective identity carried the Parc Agrovillageois project. When it was "cut in half" to address the UPA's reservations, so too was the identity of the project. The project lost momentum because it could no longer be developed as collectively imagined (Laroche 2013b; Nadeau 2013b).

Building community confidence and participation in early stages

To prevent and address the potential reluctance of the St-Camille community towards the real estate projects, leaders and participants strived to integrate all citizens in the development process. St-Camille citizens were given space and time to ask questions, express concerns and reflect on the propositions during community forums. By becoming involved with the local parish and various local organizations, it is even said that some Rang 13 members became St-Camille citizens before their houses were built (Dufresne 2012). St-Camille residents welcomed the proposals and became partners of the population increase projects because they were extensively consulted (Dufresne 2012) and because ample space and time were given to discussing and establishing a common base (Bachand 2013).

Precursors

Precursors can be categorized in the following four basic groups.

- Provincial policy: For example, the Pacte Rural mandated the undertaking of the strategic plan, granted financial resources and brought fibre optic and high speed internet to the community (an attractive service in the context of rural development);
- Partnerships between and within the community, municipal, educational and other institutions: The CDSESC, for example, is a driving force of the real estate projects. La Clé des Champs originates from the Université Sherbrooke

applied ethical course and the shared knowledge workshops have been developed in partnership with UQAM's CRISES;

- The community's social fabric: Laroche believes that widespread community involvement results in the development of a high level of collective intelligence which, combined with a focus on the co-construction of knowledge and the use of new technologies, has kept St-Camille up-to-date (Laroche 2013a). The Dégénékoro exchange program may also have played a role in shaping St-Camille's vision.
- Sociogeographical features: St-Camille is situated near Asbestos, a community which faced several ups and downs as a direct result of embracing an economic model dependent upon the mining industry. St-Camille possibly opted for economic diversification because it has witnessed the economic, social and environmental challenges and risks associated with that economic "mono-culture". St-Camille's history as a once thriving agricultural community, as well as the late 1990's debate concerning the proliferation of the pork industry also potentially contributed to St-Camille's intent to diversify its economy and agriculture.

Greatest achievements

St-Camille's greatest achievement was generally identified as its population increase. Due to the real estate development projects, St-Camille is expected to continue attracting new residents whose families, work activities and community involvement are likely to contribute to St-Camille's vision. St-Camille has retained key community services and has likely increased its food autonomy with La Clé des Champs. The median age of St-Camille residents and the average age of all farm operators are relatively lower than the regional, provincial and national levels. Although no direct correlation can be made between the age of farm operators and the long-term sustainability and diversity of St-Camille's

agricultural sector, this demographic element is consistent with, and may contribute to, St-Camille's aspirations. Interviewees were particularly proud of belonging to a welcoming and learning community, where spaces for the ongoing and multi-level exchange of knowledge are constructed and nurtured by community members.

Replicability

Interviewees felt that many other small, agricultural rural communities were threatened by population decline. According to Solidarité rurale du Québec, a non profit organization promoting the development and revitalization of rural communities, the population of rural communities situated in relative proximity to large urban centres are steadily increasing while 46% of remote communities are experiencing a population decline. These two trends indicate a looming socio-geographic polarization in the Québec countryside. The aging of the rural population is also likely to impact rural communities throughout Québec as the 15-64 year old group is expected to reach 59% in 2026, a significant decrease from 68% in 2001 (Solidarité rurale du Québec 2013). St-Camille's strategy to address these challenges was seen as potentially replicable. Instead of adopting a "build it and they will come" model, where communities are pressured to welcome or seek out job-generating industries, St-Camille empowers current and future community members to create their living environments and income generating activities (Laroche 2013a). St-Camille taps into the appeal of community building as a collective and personal project to reverse problematic demographic trends.

Barriers originating in provincial regulation likely to be present in other Québec communities include the supply-management system as currently administered by the UPA, the challenge of accessing arable land for the new generation and the

difficult task of striking an equilibrium between agricultural land protection and maintaining vibrant rural communities. St-Camille's potentially replicable responses include:

- Building partnerships with organizations and governing bodies at the local (i.e. the CDSESC), regional (i.e. the Des Sources MRC) and provincial (i.e. the Pacte rural) levels as a means to expand local development resources;
- Supporting collective entrepreneurship as a community-driven contributor to the complex process of maintaining or enhancing community vitality (i.e. the groupe du coin, the real estate projects and La Clé des Champs);
- Developing inclusive processes and spaces for dialogue to: enable the co-construction of knowledge (i.e. the salon), articulate a strategic plan reflecting community aspirations (i.e. the inclusion of food autonomy and agricultural diversification in the 2008-2014 strategic plan), and innovate in its approach to local development (i.e. the zoning modification in the Parc Agrovillageois project).

Some of St-Camille's socio-geographical features may have implications limiting replicability. For example, not all villages experience the proximity of, or pressure from, the resource extraction industry, and not all villages are situated within commuting distance of large educational institutions. Le P'tit Bonheur is also headquarter to regional development organizations that make available a wide set of expertise and local development resources. Finally, St-Camille's social fabric is unique in terms of its long-time commitment to volunteering and community involvement.

Section V: St-Camille and Food Sovereignty

"Food sovereignty is not necessarily named in the mission of projects like La Clé des Champs and La Cueillette (…) in many ways we are putting into

action the main food sovereignty principle which calls for self-governance, the self-determination of our food system" -Nadine Bachand, Rang 13 resident and Équiterre project manager for Agriculture and pesticides.

Socio-political circumstances which either undermine or support Food Sovereignty in St-Camille include: provincial and regional policies and dynamics reported in Section I; key achievements described in Section II; barriers and challenges identified in section III; and, best practices highlighted in section IV. Section V uses the six pillars of Food Sovereignty to frame case study findings.

Pillar One: Focuses on Food for People

The inclusion of food autonomy and agricultural diversification in St-Camille's 2008-2014 strategic plan aims to increase access to, and the diversity of, local food products. The municipality perceives and positions itself as a key player in shaping the access to, and diversity, of local foods, thus rejecting the notion that food is primarily a component of international agri-businesses to be treated as any other commodity. The plan also infers that the task of shaping the food system is incumbent to the community. The municipality entrusts this responsibility to the CDSESC, who accompanies projects relating to food autonomy and agricultural diversification such as the salon. According to Lair (2011), the worldviews and opinions that motivated individuals involved in the foundation of La Clé des Champs included a critical view of conventional agriculture and the belief that political entities such as the UPA and the MAPAQ prioritized large scale producers to the detriment of smaller, more community-oriented operations (Lair 2011). The purchasing group La Cueillette and the market garden La Clé des Champs are two projects believed to have increased the availability and diversity of food products in St-Camille.

Pillar Two: Values Food Providers

St-Camille manifests its support for food providers by developing learning opportunities and a set of circumstances supporting the establishment of new farmers and, as part of the population increase project, seeking out newcomers who value the contributions of local food producers. The Rang 13 was conceived with the needs of small scale agricultural and forestry initiatives in mind to attract potential food producers and the salon was founded to enable food providers to share knowledge, gain resources and explore various avenues pertaining to agricultural diversification. The Parc Agrovillageois was designed to attract people who value a working agricultural landscape to the extent that they chose to live in close proximity to La Clé des Champs. According to Lair (2011), La Clé des Champs founders and supporters were motivated in part by the concern that farmers are victims of a globalized economy which increased farmer debt loads and made it harder for incoming farmers to start farming (Lair 2011). St-Camille's focus on bridge-building and the co-construction of knowledge, combined with social infrastructures such as the salon and the shared knowledge workshops, illustrates the value placed by the community on maintaining a healthy coexistence between conventional and emerging agricultural models and between agricultural producers and other residents.

Pillar Three: Localizes Food Systems

Agricultural diversification, an issue central to St-Camille's strategic plan, contributes to the localization of food systems by facilitating the emergence of a consumption model based on the availability of diverse and locally-produced foods. Promoting autonomy, another key theme of the 2008-2014 plan, implies greater reliance on local resources and production capacities, thereby establishing socio-economic circumstances conducive to a local food system. Laroche points out that "it is in projects like the Parc Agrovillageois that the food autonomy

concept finds its full expression" (Laroche 2013a). As a development project that features proximity to food production while preserving agricultural land, the Parc Agrovillageois brings consumers and producers spatially and socially closer together. The creation of La Clé des Champs was in part motivated by: the conviction that an agricultural model centred on monoculture was in conflict with the principle of diversification (which supporters adhered to), and; the view that the lack of access to locally produced foods (all categories included) was a sign that agriculture is disconnected from the community (Lair 2011). Both La Clé des Champs and La Cueillette are believed to have made more local foods available and built a network of consumers committed to supporting the local food system.

Pillar Four: Puts Control Locally

St-Camille's population increase strategy empowers individuals and builds community (Laroche 2013a). The participatory and cooperative structure of the real estate developments yielded significant control to future residents by placing the project elaboration process in the hands of individuals and the collectivity. St-Camille's strong stance against any mining, oil or gas project that would undermine the growth of the agricultural sector or any other economic, social, and environmental activity within its territorial limits is consistent with its position that communities should be able to protect and benefit from its food producing resources.

Pillar Five: Builds Knowledge and Skills

The CDSESC has developed several projects that build on the skills and local knowledge of community members. The salon is one example of an initiative related specifically to the food system whereas the shared knowledge workshops are a more general example of the partnerships called for by St-Camille's ethos of being a learning community. St-Camille has developed its own "community

appropriate research system" designed according to the community's needs, which draws from a broad pool of organizations and initiatives including Inode Estrie, the Université Sherbrooke, the intercultural exchange program with Dégnékoro, and more. In addition, La Clé des Champs has become a local repository of food production knowledge.

Pillar Six: Works with Nature

Diversity is a characteristic of healthy and resilient ecosystems and communities alike. An agriculturally diverse landscape, where smaller farms and food producing operations thrive, can thus be seen as a key component to a community's health and resiliency. The fear that the environmental impacts of conventional agricultural practices are too intensive for agricultural ecosystems played a role in the creation of La Clé des Champs (Lair 2011). La Clé des Champs thus adopted a diverse organic market garden model consistent with the agroecological production methods called for by Food Sovereignty. St-Camille's rejection of the gold mining industry was partly grounded in the concern that mining industry practices were ecologically destructive and posed a threat to agricultural land and the community's food autonomy.

Chapter Four: Developing a Food Sovereignty assessment and action framework

Scope of the proposed Food Sovereignty assessment framework

A Food Sovereignty assessment and action framework differs from existing food system assessments in that it is focused on Food Sovereignty principles. As such the targeted audience are communities and local governments who want to engage in Food Sovereignty Planning. In the context of this thesis, I define Food Sovereignty Planning as the integration of Food Sovereignty principles into policies, plans, and programming at all levels of governance. As we have seen, legitimate questions concerning the transformative process necessary to achieve Food Sovereignty emerge from the literature review. Patel points out that Food Sovereignty calls for "a mass re-politicization of food politics, through a call for people to figure out for themselves what they want the right to food to be in their communities" (Patel 2007, 87). That people are to "figure out for themselves" what Food Sovereignty means within their respective community is an empowering and vast endeavour that requires "the building of a sustainable and widespread process of democracy that can provide political direction to the appropriate level of government required to see implementation through to completion" (Patel 2007, 87). Yet as Desmarais (2011) asks, what mechanisms and processes can those advocating food sovereignty introduce to reconcile class interests and balance power dynamics to ensure that all voices are heard and acted upon? It is likely that multiple mechanisms and processes at various governance levels will need to be in motion over a long-term period for a just and sustainable food system to emerge.

This thesis is concerned with local governments in part because as a service provider, local governments are closer to their citizens and the choices they make

as consumers than federal or provincial governments. They have the power to educate the public, to support local initiatives, and to enact policies that promote Food Sovereignty. This chapter is concerned with identifying Food Sovereignty indicators that communities can use to guide and benchmark progress towards just and sustainable food systems. To borrow an expression coined by Desmarais and Wittman (2013), implementing Food Sovereignty requires local governments and communities to critically engage in "a new politics of the possibility". A Food Sovereignty assessment framework can facilitate this critical engagement by:

- Bridging the field of food system planning with the Food Sovereignty movement, thus further positioning Food Sovereignty as an organizing frame for transformative social change (Desmarais and Wittman 2013).
- Listing indicators that identify circumstances and initiatives conducive to the advancement of Food Sovereignty.
- Facilitating the comparison and exchange of ideas that relate to Food Sovereignty Planning.
- Providing examples and resources that can inform Food Sovereignty Planning;
- Benchmarking the efficacy of existing mechanisms such as policies and programs.
- Gaining insight on the state of the local food system to facilitate the development of efficient Food Sovereignty mechanisms and processes.

Five broad considerations are of assistance when developing an assessment framework. Firstly, indicators are the products of the circumstances that created them, meaning that they are neither neutral nor impartial (Blay-Palmer, Turner, and Kornelsen 2012, 337). Being aware of the worldviews and framing devices within which indicators are developed and used is crucial. Secondly, indicators measure aspects of a given system at specific points in time. Indicators are

snapshots that reflect the ongoing shifts within, or the dynamism of a given system, only when consistently and assiduously measured (and at times improved) overtime. Thirdly, the boundaries we draw around different categories, and the ways by which we relate these categories to one another will have an impact on the extent to which, and the manner by which, the different components of the framework are integrated. Fourthly, assessment processes are typically outcomes-based, meaning that they are developed or designed around goals or objectives. We measure because we want to improve a situation or move toward another state. Fifthly, the criteria we establish to develop or select indicators reflect the assessment's goal and impact the data collection process, the analysis and whether the assessment is likely to be replicated. Positioning the elaboration of a Food Sovereignty assessment and action framework in relation to these five considerations allows us to explore the paradigm shift involved in Food Sovereignty Planning.

1) Indicators are products of circumstances: Food Sovereignty is a political concept bringing specific framing devices and worldviews to the development of agriculture and food policy. Part of the Food Sovereignty worldview is a notion of interdependence at the community level, where the interests of community members are recognized as being potentially very different from interests driven by a neoliberal vision of a globally integrated world composed of rational, autonomous, self-interested individuals (Schanbacher 2010). The perspective on cooperation advanced by Food Sovereignty means that Food Sovereignty indicators should assess levels of, or opportunities for, cooperation in the local food system.

2) Indicators are snapshots: Designing a framework capable of capturing the multifaceted complexity of the food system from the Food Sovereignty

perspective overtime may seem an impossible task. However, because a Food Sovereignty assessment framework would be designed by and for the community, it is likely that its content would stand greater chance of reflecting both the priorities and capacities of the community. Ownership of the framework by the community may also bring dedication to the data collection process and help ensure its perpetuation.

3) Categories impact integration: It appears logical for a Food Sovereignty framework to be articulated around, and indicators categorized according to, the six principles it defends, namely: 1) Focuses on food for people; 2) Values food providers; 3) Localizes food systems; 4) Puts control locally; 5) Builds knowledge and skills; and 6), Works with nature. In theory a Food Sovereignty framework should explicitly integrate these six principles because they are by definition interlinked and inseparable. However in practice this poses a challenge: because the principles are themselves interconnected, one indicator may directly relate to several Food Sovereignty pillars.

4) Outcome oriented and outcome based: The Food Sovereignty concept is the product of a dysfunctional system, the globalized corporate food and agriculture regime, and the aspirations and needs of those who produce, distribute and consume food. By demanding to put people at the heart of food system policies instead of the demands of markets and corporations, Food Sovereignty names both problem and solution. The problem and the solution thus cannot be dissociated from the desired outcome, namely Food Sovereignty. Indicators should allow us to gain a better understanding of the issues at stake (i.e. the problems) but they must also point to potential solutions. A Food Sovereignty framework assesses both red flags and promising innovations.

5) Criteria matters: The process of developing a Food Sovereignty assessment should reflect the democratic aspirations inherent to the concept, namely the empowerment of civil society in decision-making processes (Pimbert 2008) and a shift from a top-down to bottom-up streams of power and from technocratic to participatory planning contexts (Carney 2012, 1-17). To reflect these aspirations, a Food Sovereignty assessment framework would allow the community to set their own indicator selection and development criteria and would ensure that this process is guided by a committee representative of and elected by the community. It also requires being mindful of who is invited and supported in joining the process, how the indicators are developed or selected, how the data is obtained and analyzed, etc.

Although a Food Sovereignty assessment can assist local governments and communities in engaging in "a new politics of possibility", ultimately the capacity of a Food Sovereignty assessment to affect change is circumscribed by its corresponding action plan.

Food Sovereignty action plans

The development of a Food Sovereignty action plan can assist people in self-defining community Food Sovereignty by providing a democratic, formal, accountable, transparent, structured and communicable platform for options to be explored, priorities to be set and decisions made. In the food system planning context, action planning is defined in the "Facilitators Guidebook 2011: Community Based Food System Assessment and Planning" as a sequence of steps that must be taken or activities that must be performed adequately for a strategy to succeed (Bargainer et al. 2011). The Food Sovereignty analytical framework calls for assessment findings (trends, hot spots, promising innovations, etc.) to be made available to the collectivity and should provide community members with the

opportunity to meaningfully engage with the elaboration of a Food Sovereignty action plan. In developing a Food Sovereignty action plan, the three levels of intervention (household, public and private) identified in Chapter Two might help conceptualize and articulate specific targets and identify who is responsible for implementing what. The comparative analysis section contains several additional resources and examples of initiatives that could frame and inspire the content of a Food Sovereignty action plan.

Limitations and intended use of the proposed Food Sovereignty framework

- An important limitation of the proposed framework is that quantifiable and aggregatable measurement units do not accompany indicators. Rather the indicators are general statements identifying circumstances or initiatives potentially conducive to the advancement of Food Sovereignty. Consequently the proposed framework is intentionally not a ready-to use end product: the process of elaborating a Food Sovereignty assessment framework should favour a bottom-up approach in order to be consistent with Food Sovereignty, which implies that indicators along with their measurement units should be adopted or developed directly or indirectly by the collectivity. The proposed indicators can be used as a starting point, a broad framework upon which collectivities can build on and modify in accordance with their own context. In further developing or selecting indicators for a Food Sovereignty assessment, I suggest that collectivities keep in mind four broad guidelines:
- Indicators should be pertinent to the Food Sovereignty objective.
- Indicators should be appropriate for the targeted audience.
- Measurement units should be quantifiable and aggregatable. A point system rating is likely to be applicable to a Food Sovereignty assessment framework because it could measure: 1. Whether the indicator meets a criterion

(present/absent=1/0, yes/no=1/0); 2. How well the indicator rates according to a criterion (high/medium/low = 3/2/1), or a five point scale (1=lowest 5=highest); and 3.Whether the desired trend is taking place (yes/no=1/0).

- Indicators for which data is not easily or readily available should still be included in the framework if they are deemed relevant to the community as the absence of information can be telling.

The proposed Food Sovereignty framework is not comprehensive and should be used with complementary resources (such as the existing frameworks and guides described in under Indicator #5). The fact that the 11 indicators are shaped by only two agricultural communities has resulted in many indicators being agriculture-centred. Such indicators are less relevant to communities not directly engaged in agriculture such as coastal and northern communities. Overall the framework fails to capture several elements that concern Food Sovereignty such as indigenous food traditions and fisheries. Implementing the framework in different social, economic and ecological contexts and drawing upon feedback from the broad community, field practitioners and academics, could enrich its content, broaden its applicability and increase its capacity to affect change.

Methodology

This chapter tackles the second research question: What Food Sovereignty indicators can communities use to guide and benchmark progress towards just and sustainable food systems? The indicators are developed by comparing the key achievements, best practices, key barriers and other elements emerging from the SSI and the St-Camille case studies, a process conducted in the following "Comparative analysis" section and summarized by Table 2. A total of eleven indicators were extracted from this comparative process. For each indicator I draw from the literature review and the case studies to illustrate how the proposed

indicators feed into Food Sovereignty Planning. Table 3 relates the indicators extracted from the comparative analysis process to Food Sovereignty notions and provides additional examples and resources relevant to the indicator in question.

Comparative analysis

Several elements distinguish St-Camille and SSI. For example, SSI is a popular seasonal tourist destination whose agriculture is small-scale, diverse and organic, whereas the mining mono-industrial model and conventional agriculture are prevalent in the St-Camille region. While SSI agriculture is affected by high land prices driven by a growing population and a strong regional real estate demand related to the island's natural features and artistic vibe, St-Camille is actively facing the issue of a decreasing population by creating attractive opportunities for newcomers. On SSI, physical infrastructures support the existing and aspiring farming community whereas in St-Camille social capital partnerships feed into a reflection concerning community food autonomy and agricultural diversification. These differing socio-geographical and political features and precursors, and many other not identified by interviewees or initial background research, are likely to have played a determining role in the development, evolution and replicability of key achievements and best practices. For example, MacRae and Donahue (2013) attribute the high concentration of food initiatives in British Columbia to the province making community food security a core public health function and delivering funding for health authorities to support community food action initiatives and food policy groups as part of its food security agenda. They also point to Québec's Rapport Pronovost as a significant impetus for food system thinking, both provincially and regionally (MacRae and Donahue 2013).

Mac Rae and Donohue (2013) also identified six categories of food system activity representing the level of municipal involvement (see Chapter Two). Seen

as a whole both the St-Camille and SSI food initiatives would fall somewhere between category 2 (hybrid model with direct links to government), and category 3 (hybrid model with indirect links to government). On SSI, the local government indirectly intervenes at the public and private level through its support for the work of the SSIAA, the primary driver of key achievements (i.e. the development of facilities that support agriculture). In St-Camille, the local government also indirectly intervenes at the public and private level by endorsing the work of the CDSESC and by supporting projects that increase community food autonomy (i.e. La Clé des Champs coop), promote agricultural diversification (i.e. the salon) and diversify real estate opportunities (i.e. the Parc AgroVillageois and the Rang 13). Neither SSI nor St-Camille appears to have developed interventions concerning the household level.

The trending processes assisting local governments in developing food policies and initiatives at work on SSI include the integration of food system considerations to community plans and strategies (i.e. the 2008 OCP) and the development and use of food system data (i.e. the livestock study). The St-Camille strategic plan addresses agricultural diversification and community food autonomy, two important food system considerations. Neither Food Charters nor Food Policy Councils were present in SSI and St-Camille.

Certain broad similarities emerge from case study findings. I identify the overlapping features of St-Camille and SSI to directly inform the elaboration of Food Sovereignty Planning indicators. The following section draws from key achievements, best practices, challenges and barriers and other relevant elements to categorize coinciding features, identify general findings, and propose a corresponding indicator. This process and its findings are summarized in Table 2. The following section also relates the proposed indicators to Food Sovereignty

theory identified in the literature review and provides additional North American examples and resources that could support local governments and communities engage in Food Sovereignty Planning by meeting the indicator in question. Table 3 provides an overview of this process.

Table 2. Summary of comparative analysis process leading to the development of Food Sovereignty indicators							
Content	**Community**	**Key achievements**	**Best practices**	**Challenges and barriers**	**Other**	**Overall finding**	**Indicator**
Local government plan	SSI		-AFP process and content			Local governments use local food system and agricultural plans.	**1.**
	St-Camille				-Des Sources PDZA		
Local government organization	SSI	-Establish the SSIAA				Local governments establish entities whose mandate and activities relate to food and agriculture.	**2.**
	St-Camille		-CDSESC as a community-municipality partnership				
Community plan	SSI		-AFP process and content	-Development and application of local food policy	-Language in 2008 OCP	Community plans integrate food system considerations to local policies and planning.	**3.**
	St-Camille		-Food autonomy and agricultural diversification in strategic plan				
Community enterprises	SSI	-Food and agriculture community facilities				Community-based food and agriculture enterprises increase diversity and availability of local foods and maintain/develop knowledge.	**4.**
	St-Camille	-Increase community food autonomy			-Community-based food and agriculture enterprises		
Food system data	SSI		-Tracking of relevant indicators -Using data to motivate			Food system data supports planning processes and projects, raises awareness and fosters community involvement.	**5.**
	St-Camille				-Population data triggered real estate projects		
Community participation	SSI	-AFP process and content		-Communication		Participatory processes guide community planning. Communication fosters community buy-in.	**6.**
	St-Camille		-Building community confidence and participation				

Social and physical infrastructures	SSI	-Community farmland trust -Food and agriculture community facilities		-Land availability and accessibility		Social and physical infrastructures support farmers, help bring consumer and producers closer together, and assist new farmers.	**7.**
	St-Camille			-Land access for new farmers -Growing new farmers	-Clé des Champs transitioned to new farmers		
Advocacy	SSI	-Establish the SSIAA		-Unsupportive provincial/federal policy -Lack of funding and support		Constraints posed by policies, regulatory bodies and programs are met with advocacy.	**8.**
	St-Camille			-Policy/institutions unsupportive of agricultural diversification -Resource extraction industry	-Mine de rien committee		
Collective entrepreneurship	SSI	-Food and agriculture community facilities				Collective entrepreneurship shapes the local food system.	**9.**
	St-Camille		-Collective entrepreneurship				
Partnerships	SSI	-Food and agriculture community facilities		-AFP process and content		Partnerships contribute to building local food and agriculture knowledge and capacity	**10.**
	St-Camille		-Co-construction of knowledge -CDSESC as a community-municipality partnership				
Connection to community health	SSI			-Housing -Local government structure	-Local food and agriculture in energy strategy	Several aspects of community health are connected to local food and agriculture.	**11.**
	St-Camille	-Diversifying real estate opportunities -Increase community food autonomy -Promote agricultural diversification		-Growing new farmers -Protecting agricultural land while maintaining vibrant communities -Resource extraction industry			

INDICATOR #1

Local governments support the development and the implementation of an agricultural plan.

The development and implementation of an agricultural plan plays an important role in developing a holistic understanding of the food system and addressing the issues necessary to advance Food Sovereignty. A holistic perspective on the food system: 1) integrates a multi-scale description and analysis of the system's component parts and actors as well as the interactions among these parts and actors and the variable outcomes of these interactions; and 2), recognizes that food systems are coupled social and ecological systems mediated by institutions (Ericksen, 2008). The Food Sovereignty analytical framework is concerned with how, where, when and by whom food is produced, transformed, shipped and marketed (Wittman, Desmarais, and Wiebe 2010), the degree of resource recycling and closed-loop cycles (Carney 2012, 1-17), and whether food system processes are democratic (Pimbert 2008). Much of this information can be made available through the development of an agricultural plan. Conducting an agricultural plan also feeds into Pothukuchi and Kaufman's (2000) five strategies to engage in food system planning, namely: 1) the compilation of data on the community food system, 2) the analyses of connections between food and other planning concerns, 3) the assessment of the impact of current planning on the local food system, 4) the integration of food security into community goals, and 5) the education of future planners regarding food system issues (Pothukuchi and Kaufman 2000, 113-124). These five strategies emphasize how food systems are embedded within communities, a perspective consistent with the Food Sovereignty framework.

In British Columbia, the ALC and the Ministry of Agriculture support local governments in developing Agricultural Area Plans (AAP) (a.k.a. Agricultural Farm Plans, AFP). AAP's focus on "a community's farm area to discover practical solutions to issues and identify opportunities to strengthen farming and ultimately to contribute to agriculture and the community's long-term sustainability" (BC Ministry of Agriculture 2013[32]). On SSI the SSILTC supported the development of the SSI AFP. The SSI AFP provided a thorough overview of the SSI food system, identified seven issues affecting SSI agriculture and put forward recommendations aligned with the advancement of the six Food Sovereignty pillars.

The MRC des Sources is currently developing a PDZA (a development plan for agricultural land) whose scope and objectives are similar to that of an AAP. Initial observations emerging from the ongoing elaboration of the des Sources PDZA process were presented at the 13th edition of St-Camille's salon on agricultural diversification. The des Sources PDZA is said to be aligned with agricultural diversification because it:

- Highlights the advantages of locally/regionally developing and supporting artisanal production and marketing.
- Favours the development of agricultural initiatives that localize food systems.
- Aims to promote the healthy and balanced coexistence of agricultural and non-agricultural rural enterprises.
- Seeks to raise awareness amongst local/regional agric-food actors and regional decision makers of the pertinence of agricultural diversification (BC Ministry of Agriculture 2013 ; Poulin and Marcotte 2013).

[32] Available online at http://www.agf.gov.bc.ca/resmgmt/sf/aap/.

The MRC des Sources is potentially making a significant contribution to Food Sovereignty by supporting the development of an agricultural plan aligned with agricultural diversification.

Additional resources and/or examples

North Saanich agricultural plans and strategies: The BC municipal district of North Saanich provides a good example of, and the additional strategies that can emerge from, an agricultural plan. The North Saanich Agriculture Plan (Masselink Environmental Design 2010) was conducted in 2010 and the Whole Community Agricultural Strategy (District of North Saanich 2011) was completed in 2011. The main challenges identified in the Agriculture Plan are addressed in the Whole Community Agricultural Strategy, including a decline in the profitability and viability of agricultural economic activities. Factors affecting the financial viability of the agri-food sector include high land values, limited labour availability, an aging farm population, the lack of extension support, a reduction in agricultural research, climate change and the water supply. To address key opportunities and challenges of the agri-food sector, an Agriculture Economic Development Strategy (Community Social Planning Council 2012) was undertaken in 2011/2012. The North Saanich Agriculture Economic Development Strategy establishes 5 key objectives and corresponding priority actions, and outlines municipal roles and potential partners. See http://www.northsaanich.ca/Municipal_Hall/Departments/Planning_and_Community_Services/Planning/North_Saanich_Agriculture.htm

Provincial support for the development of agricultural plans: The BC Ministry of Agriculture makes available various resources pertaining to the development of Area Plans at http://www.al.gov.bc.ca/resmgmt/sf/aap/index.htm. The MAPAQ

makes available a guide for the development of PDZA's (in French only) at http://www.mapaq.gouv.qc.ca/fr/Publications/GuidePDZA.pdf

INDICATOR #2

Local governments establish and/or support an entity/entities mandated to:

- **Ensure availability and accessibility of local, healthy, culturally appropriate and sustainably produced foods**
- **Implement agricultural plans**
- **Engage in food advocacy, research and education**

Feenstra (2002) argues that the creation and protection of social, political, intellectual and economic spaces are necessary to the emergence of just and sustainable food systems (Feenstra 2002, 99-106). Entities mandated to address food issues contribute to creating and enriching these spaces by coordinating and/or implementing projects and dialogues that relate to the Food Sovereignty principles. For example the SSIAA plays a role in writing reports and conducting feasibility studies. This material has served to raise awareness regarding SSI's geographical vulnerability and build the knowledge necessary to advance the SSIAA's mandate. The SSIAA's primary role is to implement the AFP by making agriculture a healthy, viable and culturally supported endeavour, which demonstrates a commitment to value and support food producers. The SSIAA is spearheading the development of key agricultural infrastructures, thereby making island grown or raised foods more accessible to the community. Finally, the SSIAA's work on revising the BC Agricultural Waste Regulation, the interest in an anaerobic digestor and the composting pilot projects are extensions of the "waste is food" ecological principle.

Entities targeted with this indicator can also leverage broad community interests to support local agriculture and local consumption. Schanbacher (2010) draws attention to Food Sovereignty's emphasis on local food production for local consumption as being rooted in a notion of interdependence within, and development focused on the interests of, the community. For example, the CDSESC's mandate to increase St-Camille's population by 10% led to the emergence of initiatives like the Parc AgroVillageois and the Rang 13, two projects that embody, at the very least in principle, agricultural diversification and support local agriculture.

Additional resources and/or examples

The Center for an Agricultural Economy in Hardwick, Vermont: Hardwick has gone from being a dying granite industry town to being a hub for "agripreneurs". The small community (approximately 3000 residents) is a leading example of how food-based enterprises can create sustainable economic development when supported by a community coming together to develop a local food system. A key player in Hardwick's food scene is The Centre for an Agricultural Economy (CAE), which aims to "build a regenerative, locally based, healthy food system by engaging the greater Hardwick community through collaboration opportunities, educational outreach and providing infrastructure" (The Center for an Agricultural Economy 2013[33]). CAE programs include:

- The Hardwick Community Garden.
- Learning visits and tours.
- Food system research.
- The Vermont Farm Fund.

[33] Available online at http://www.hardwickagriculture.org/.

- The Vermont Food Venture Center, a multi-use processing facility offering food business incubation and support.

In 2010 the Regional Planning Commission commissioned the CAE to produce the Northeast Kingdom Food Systems Strategic Plan (Campbell 2011). The CAE is another example of a community-based organization dedicated to enriching the social, political, intellectual and economic spaces to promote just and sustainable food systems. See http://www.hardwickagriculture.org.

INDICATOR #3

Community plans position the local government and the community as key players in:

- **Shaping access to, and diversity of, local foods.**
- **Increasing food/agricultural autonomy and/or self-sufficiency.**
- **Supporting local food producers and local agriculture.**
- **Encouraging greater proximity between production and consumption.**
- **Reconnecting the community with local agriculture.**

Community plans such as Official Community Plans (OCP's), Regional Official Plans (ROP's), Strategic Plans or Sustainability Plans, state objectives and policies that guide planning and land use management within their jurisdiction. Because community plans tend to be comprehensive and overarching in nature, they have the potential to integrate food system considerations to a broader vision and set of community priorities. By positioning the local government and the community as key players in increasing access to diverse local foods, supporting local agriculture, encouraging greater proximity between production and consumption, and reconnecting the community with local agriculture, community plans can leverage planning and land use management to move towards Food

Sovereignty. Strategies, action plans and food charters are other instruments of food system thinking that foster organizational motivation and cross-sectoral understanding while galvanizing diverse actors, setting a vision for their actions, and leveraging additional resources (Mac Rae and Donohue, 2013).

The St-Camille Strategic Plan's emphasis on building a nourishing and autonomous community is consistent with Pimbert's (2008) view that Food Sovereignty is nestled in a wider affirmation of the right to self-determination and endogenous development (Pimbert 2008). By identifying food autonomy and agricultural diversification as a means to increase the availability and diversity of local products, the Strategic Plan infers that the task of shaping the food system is incumbent to the local government and the community, consequently rejecting the commoditization of food.

The SSI AFP was undertaken prior to the SSI OCP review process. The AFP put forward 16 policy ideas for the OCP review process, the majority of which were not adopted. Nonetheless, some pivotal AFP-driven revisions were accepted and the revised OCP, by identifying agriculture on SSI as a community priority and establishing the role of government in supporting farm focused organizations and plans, helps set the tone for reconnecting agriculture and community and supporting food producers. Nonetheless, the development and application of local food policy emerged as a key challenge.

Additional resources and/or examples

Food Sovereignty ordinances in Maine: Although an increasing number of governments are engaging in food system planning, official community statements and/or community plans rarely explicitly refer to the term "Food Sovereignty" as a guiding concept, perhaps because of what Windfuhr and Jonsén

refer to as the inherently radical and political nature of Food Sovereignty (Windfuhr and Jonsén J. 2005). Most Canadian local governments appear to shy away from openly and officially embracing the wider affirmation to the right of self-determination called for by Food Sovereignty. However, the Local Food and Community Self-Governance movement in the United States is extending Food Sovereignty's right to self-determination into the territory of state law by defying the state on the sale of local foods. As of June 2013, ten Maine towns (Brooksville, Sedgwick, Penobscot, Blue Hill, Trenton, Hope, Plymouth, Livermore, Appleton and Isle au Haut) had passed Local Food and Community Self-Governance ordinances similar in content and spirit. These so-called Food Sovereignty ordinances attempt to allow food producers and processors to sell their goods directly to consumers without state or federal oversight, thereby exempting them from state licensing and inspection laws and pitting towns against the state government (Moretto 2013).

INDICATOR #4

Community-based organizations and/or enterprises:

- **Produce diverse, local and culturally appropriate foods made available to the community.**
- **Maintain and/or develop knowledge related to food and agriculture.**

Community-based organizations and enterprises making available diverse, local and culturally appropriate foods and developing food and agriculture knowledge embody Food Sovereignty principles. Food Sovereignty also emphasizes that the social connections inherent to producing, consuming and sharing food are opportunities to reclaim control over the food system (Wittman, 2010). The activities of these community-based organizations and enterprises provide such opportunities.

In St-Camille several community-based enterprises provide food products to community members, brings producers and consumers closer together and builds knowledge that support the development and management of localized food production and healthy eating education. Through workshops and agroforestry consulting services, Cultur'Innov assists producers in exploring, producing, harvesting, transforming, commercializing and supporting the development of enterprises in the field of non-woody forest products and medicinal plants. The purchasing group La Cueillette aims to increase the availability, financial accessibility and diversity of food products, connect local producers with purchasing group members, and distribute educational material on healthy eating. Although Rustique Apiculture is primarily a queen bee rearing business, the enterprise also produces and sells honey and has been involved with Miel Montréal, a solidarity cooperative offering educational services and material related to ecological urban bee keeping.

The Salt Spring Abattoir Society is a community-based enterprises (the assets are owned by the community through the SSIAA) playing a key role in making locally raised meats available to the community and ensuring that meat production (and the knowledge inherent to) can be sustained on SSI.

Additional resources and/or examples

The Nelson House Country Foods Program: The Nelson House Country Foods program is a wild food distribution program founded and operated by the Nisichawayasihk Cree Nation (also known as Nelson House). The Country Foods program provides access to healthy and culturally appropriate foods while creating jobs and building community. The program employs one program coordinator, a technician and five employees that hunt and fish year round. The

wild game and fish are cut and some of the items are frozen in NCN's country food processing centre. The food is distributed for free amongst community members with priority given to the elders, the sick, and low-income, single parents families. The Nisichawayasihk Cree Nation thus funds and supports an organized wild food gathering and distribution system that is culturally relevant to the community. The program is said to promote the teaching of cultural values (such as sharing and wild life conservation) and the preservation of traditional skills (such as the smoking of meat and fish) (Thompson et al. 2010). Thompson et al. (2012) have related the country food program to better food security (Thompson et al. 2012, 43-66).

INDICATOR #5

Food system data is consistently collected, accurately compiled and made available to the community. This data serves to raise awareness and orient food system related community planning processes and projects.

Transparent food system data collection can support participatory planning contexts and the development of integrated food and agricultural policies referred to by Carney (2012) as being essential in shifting from a food security to a Food Sovereignty approach. Food Sovereignty also aims to empower civil society to substantively engage with food policy at all levels (Patel 2009, 663; Pimbert 2008). The availability of relevant food system data can enhance the capacity of civil society to meaningfully engage with food policy. Food system assessments can also help record baseline measurement, bring stakeholders together in defining a vision, build social and cultural connections and foster collaboration amongst food stakeholders, and achieve a more integrated, interconnected and dynamic perspective on the food system (Meter 2011, 7-9). The food system assessment methodology is thus well suited to Food Sovereignty Planning.

The 2010 Salt Spring Island Livestock Production Study, the 2005 Local Produce Study, and the AFP, were used to motivate the SSI community to support and engage with SSIAA activities. In St-Camille, the population decrease data triggered the development of the Rang 13 and the Parc AgroVillageois.

Additional resources and/or examples

Food system assessment frameworks: A growing number of food system assessments have been or are being developed in Canada and the United States, with the majority appearing to be conducted by large cities such as Calgary, Vancouver and San Francisco. Whereas existing food system assessments can guide municipalities intending to develop a food system assessment, two resources likely to be suitable to the context of small, rural communities, include: The BC-based "The Community Food System Assessment Guide for British Columbia" (http://www.phsa.ca/NR/rdonlyres/10ADB2B7-DD0F-49FA-AC58-E40D642E412B/0/CommunityFoodAssessmentGuide.pdf) and the "Community Food System Assessment: A Companion Tool for the Guide" (http://www.phsa.ca/NR/rdonlyres/A359DCB6-2D22-46F7-A0FD-57C4FA8C25E7/0/CommunityFoodSystemAssessmentACompanionToolfortheGuide.pdf). The Assessment Guide is a broad planning tool for food system assessment whereas The Companion Tool lists potential indicators and provides sources for existing data, tools and data gathering methodologies.

Another similar resources, the US-based "What's cooking in your Food System: A guide to community food system assessment" (http://foodsecureCanada.org/sites/default/files/s_Cooking_Part_A.pdf) posits that a quality assessment: 1) examines a range of food issues, and the links between these issues and community goals; 2) is designed to inform and build support for

practical actions to enhance community food security; 3) is a planned and systematic process of gathering information about and analyzing community food issues; 4) addresses both needs and assets; 5) focuses on a geographically defined place; 6) involves a broad spectrum of actors from the community; 7) emphasizes collaboration amongst participants; and 8), requires significant time and resources to plan and implement (Pothukuchi et al. 2002).

Another US-based resource, the "Facilitators Guidebook 2011: Community Based Food System Assessment and Planning" (http://www.pubs.ext.vt.edu/3108/3108-9029/3108-9029_pdf.pdf) provides a process for gathering stakeholders using the Community Capitals Framework (natural, built, financial, social, human, cultural and political capital). The guidebook looks at how to "Assemble and work with a Community Food System (CFS) Steering Committee to: Define your community food system; Define your CFS goals and take stock of CFS assets; Create a Baseline Report and broaden the stakeholder base", "Host a community work session to develop, evaluate, and prioritize strategies for enhancing your community's food system", and "Develop an action plan to engage the community in accomplishing priority strategies" (Bargainer et al. 2011, 1).

INDICATOR #6

Participatory and inclusive processes guide:

- **Community planning and visioning**
- **Project development**

Food Sovereignty calls for participatory and inclusive approaches to community visioning, planning and project development. This can be related to: a) Carney's (2012) view that participatory planning contexts are essential to Food Sovereignty; b) Pimbert's (2008) belief that direct democracy and equity are

objectives pursued by Food Sovereignty; and c), Schanbacher's opinion that Food Sovereignty, which emphasizes a focus on local, community development in which the interests of families, friends and neighbours are interconnected, stands in contrast to a "neoliberal vision of a globally integrated world composed of rational, autonomous, self-interested individuals" (Schanbacher 2010, 55). Participatory and inclusive processes to community planning and project development can contribute to: Placing people (both producers and non-producers) at the centre of policy and project development; Bringing producers and consumers socially closer together though collective visioning and implementation processes; Yielding more opportunities for self-determination to the community and enriching collective knowledge by bringing together multiple stakeholders.

On SSI, the AFP was reportedly conducted through a particularly participatory and inclusive process. This was instrumental in achieving community support and buy-in and giving the community a sense of ownership of the AFP content. Although transparent communication was instrumental in gaining support for the abattoir, the lack of communication with local regulatory bodies remains an important challenge.

The St-Camille Strategic Plan was developed in consultation with the community and the ethos of fostering the co-construction of knowledge is central to the CDSESC's approach to project development. By building community confidence and participation in the early stages of project development, and by contributing to the shared knowledge workshops, the CDSESC works to promote a healthy co-existence between residents, including conventional and alternative producers.

Additional resources and/or examples

WHOLE MEASURES for Community Food Systems: Facilitating participatory and inclusive community planning and project development typically requires both skills, experience and the capacity to foster and apply a big picture approach. "WHOLE MEASURES for Community Food Systems: Values Based Planning and Evaluation" (http://www.wholecommunities.org/learning/measures_success.shtml) is a planning and evaluation tool designed to: give organizations and communities a collaborative process for defining and expressing their complex stories and the multiple outcomes that emerge from their work; developing a shared vision and common measures among partner organizations; and, exploring areas of difference so that collaborations can cultivate richness and true representation. It identifies six fields of practice around which to develop indicators: Justice and Fairness, Healthy People, Strong Communities, Sustainable Ecosystems, Vibrant Farms and Thriving Local Economies. The WHOLE MEASURES for Community Food Systems is based on the WHOLE MEASURES tool originally developed by the Center for Whole Communities. As a land-based leadership development organization, the approach and resources made available by the Center for Whole Communities aligns particularly well with the Food Sovereignty framework.

INDICATOR #7

Community-based physical and social infrastructures are available locally to:

- **Support local food entrepreneurs and farmers**
- **Enhance the social and spatial proximity of consumers and producers**
- **Promote an agroecological approach/methods to food production**
- **Assist the new generation of farmers in establishing viable enterprises**

Physical and social infrastructures can help local food entrepreneurs and farmers develop viable enterprises, build connections between consumers and producers, and help align production and distribution practices with a sustainability-focused approach to community development, all of which are Food Sovereignty aspirations. Supporting the establishment of new farmers fosters community food autonomy and increases the resiliency and sustainability of local food systems in the long term, thus it is at the very heart of Food Sovereignty. Synergistic relationships are also likely to emerge where the establishment of new farmers intersects with the protection of agricultural land and an increasing demand for local foods by the community. Opportunities to support local food entrepreneurs and farmers exist at virtually all levels of food system activities, which include producing, processing, packaging, distributing, retailing and consuming (Pothukuchi and Kaufman 1999, 213-224), but also the interaction patterns between these activities (Ericksen 2008, 234). These infrastructures can also be viewed from Sumner's definition of a sustainable food system as being anchored within the public domain and involving "an interdependent web of activities that build the civil commons with respect to the production, processing, distribution, consumption and disposal of food" (Sumner 2012, 326). This echoes how Schanbacher's work draws attention to how the Slow Food Movement sets aside the producer-consumer dichotomy to centre on the notion of "co-producer's". The term "co-producers" refers to consumers who makes a political statement by taking an active interest in "those who produce our food, how they produce it and the problems they face in doing so", thus becoming part of the production process (Slow Food 2013[34]). Co-producers, whether they be individuals, organizations or institutions, have a greater stake in the production process and thus contribute to

[34] Available from http://www.slowfood.com/international/27/be-a-coproducer.

re-envisioning the relationship of humans to the food we consume (Schanbacher 2010).

The SSI Agriculture infrastructure project is focused on the development of physical infrastructures that make farming more viable and ecological. The abattoir and the local produce centre support production, processing and packaging. The composting facility as well as the anaerobic digestor support resource recycling and a closed-loop system, which is consistent with how the Food Sovereignty framework includes the post consumption stage of human interaction with food (Carney 2012, 1-17). The focus on infrastructures that help localize agriculture and promote a closed loop system can be related to Pimbert's view that a central objective of Food Sovereignty is to seek human activities and resource use patterns compatible with ecological sustainability (Pimbert 2008). As a social infrastructure, St-Camille's salon on agricultural diversification creates a space to reflect on agricultural diversification and the regional future of agriculture. It is primarily concerned with understanding the interactions between, and the impacts of, various factors affecting agriculture at the local level, as well as enhancing the social and spatial proximity of consumers and producers.

Challenges faced by incoming farmers often lie in securing access to land and housing, two factors that emerged as important barriers in the SSI and St-Camille case studies. The incubator program of the SSI Farmland Trust Fulford Property is being developed to provide land access to incoming farmers. The SSIAA has submitted discussion points to the SSILTC proposing the revision of terms, criteria, and enforcement to address the lack of farm housing on SSI. In St-Camille, the first edition of the salon on agricultural diversification focused on strategies to support the new farming generation. La Clé des Champs is an

interesting example of transitioning a collectively owned enterprise to new farmers.

Additional resources and/or examples

Food business incubators: Food business incubators provide physical and social infrastructures assisting emerging food processing entrepreneurs. Such incubators are found in both rural and urban contexts. Local and regional governments as well as other organizations often support their programs. For example, the Vermont Food Venture Center (VFVC) is an incubator for new food processing businesses situated in Hardwick, a small rural Vermont community (approximately 3000 residents) known for being a dynamic and fast evolving hub for agriculture and food entrepreneurship. The VFVC is operated by Hardwick's Center for an Agricultural Economy. The VFVC partners with the Vermont Small Business Development Center to offer shared kitchen processing services for new food processing businesses and value added processing for local farms, storage space and co-packing services. The VFVC is a 15,000 square foot processing facility that includes three shared kitchens, dry and cold storage, a conference room, semi-automated equipment and a loading dock. The VFVC also offers support with recipe and business development, consulting services, workshops, certification training and networking. The VFVC's mission is to support job creation, strengthen Vermont's local food network and further integrate the agricultural economy into the life of the greater Hardwick community. See http://www.hardwickagriculture.org/vermont-food-venture-center.

Farm incubators: There are several examples of programs and organizations supporting new farmers throughout Canada. These programs are usually developed (although not always) through a partnership involving a coordinating organization, a local government and a governmental and/or non-governmental

funder. Each program typically provides a variety of support measures whose sum is often greater than the total of its parts. Three prominent farm incubators include FarmStart's Start-Up Farm in the Greater Toronto and Hamilton Area, the Just Food Farm in Ottawa, and the Plateforme Agricole de l'Ange-Guardien in the Outaouais region, Québec.

FarmStart's Start-Up Farm (http://www.farmstart.ca/) is a 5-year program that provides new farmers access to land, infrastructure and equipment through a farm incubator program, coordinates technical and business planning skills training, and offers mentorship. FarmStart works primarily with New Canadians, young individuals from non-farm backgrounds and second career farmers. The farm incubator model incorporates four participant groups.

- Test Farmers: Potential farmers access ¼ acre of land for one year to grow and test market products of interest while developing business goals and plans.
- Start-Up Farms; New farmers access a land parcel corresponding to their business needs for three years, during which they receive a 20% cost sharing discount.
- Enterprise Farms: Following their third season new farmers present a renewed business plans and are allowed to stay on site for another two years, during which they pay full costs.
- Mentor Farms: Mentor farms can be granted permission on a case by case basis to stay on site for a longer period provided they contribute mentorship to incoming program participants and are involved in running the farm facility.

New farmers rent the space and access the services according to a progressive fee structure in order to prevent them from adopting non-viable production methods and business plans while supporting their start-up phase. FarmStart's Seed Capital

Programs supports new farmers by providing $1000 to $5000 in start-up capital for livestock, seeds, tools and mentorship. Recipient farmers are required to pass on the value of the grant through a combination of: donating seed or livestock gifts to new farmers; providing mentorship, support and training opportunities for other new farmers; and, producing food donations to community food banks or drop in meal centres (FarmStart 2013; FarmStart 2013).

JustFood's (http://www.justfood.ca/startupfarmprogram/) mission is to work towards vibrant, just and sustainable food and farming systems in the Ottawa region. Just Food's incubator program offers affordable access to land, infrastructure, equipment and training for new farmers. New farmers can access the program for a fixed 3-year period. The Just Food Farm program has received funding from the Ontario Trillium Foundation, the City of Ottawa, and Beau's All-Natural Brewing Company. New farmers in the broader region can, for a fee, access other Just Food farm supports including listing on a local food guide; a listing of farm internship/employment opportunities in the region; an economic development initiative connecting local producers with local restaurants and retailers; and a course for individuals considering farming (Just Food 2013).

The Plateforme Agricole de l'Ange-Guardien (http://www.demarretafermebio.com/) is another farm incubator program in Québec. The QC municipality of l'Ange-Guardien donated the land on which the program operates. The project was developed by the CREDETAO (Centre for applied agricultural research and technology transfer of the Outaouais). New farmers rent a certified organic parcel at a relatively low cost and have access to existing (shared) infrastructures (heated greenhouse, cold tunnels, irrigation system, cold room, etc.) as well as machinery (La Plateforme agricole de l'Ange-Guardien 2013).

Land-linking services: Other forms of support for new farmers include land-linking services. Often supported by local and regional governments, land linking services aim to connect new farmers looking for land and landowners looking to rent or sell an agricultural property. For example, following the completion of its PDZA, the MRC Brome-Missisquoi spearheaded Banquesdeterres.ca, an online "land bank" platform launched and operated in partnership with the MRC Brome Missisquoi, the MRC d'Argenteuil, the MAPAQ, local development centres and the a community think thank. Other online platforms linking land and farmers include FarmLINK, a Canada wide initiative bringing together new farmers looking for land and/or mentorship with farm owners with land/or expertise to share, and the BC-based organization Linking Land and Farmers, which offers land access resources to both landowners and land seekers. See Banquesdeterres.ca, http://www.farmlink.net and http://llaf.ca/.

INDICATOR #8

Local governments engage in, and/or mandate an entity to engage in, Food Sovereignty advocacy.

Food Sovereignty advocacy can be carried out by local governments or entities established by local governments. Food Sovereignty advocacy can, for example, challenge unsupportive policy and institutions (key barriers for both SSI and St-Camille) and denounce the lack of funding and support for small-scale farming operation (as reportedly experienced on SSI). Food Sovereignty advocacy can also be undertaken as part of the implementation of an agricultural plan and/or be guided by a community plan.

The SSIAA has been involved in a variety of advocacy work related to the AFP recommendations, including the revision of the Agricultural Waste Control Regulation, the preservation of agriculture in SSI's Burgoyne Bay Provincial Park, submitting farm housing discussion points to the SSILTC and pushing for the integration of language supportive of agriculture in the revised OCP. The SSIAA's advocacy work addresses a wide variety of interconnected elements and factors impacting local agriculture. This is compatible with Carney's (2012) theory that Food Sovereignty requires a shift from compartmentalized to integrated food and agriculture policies.

Food Sovereignty advocacy can be couched in language indirectly inclusive of food policy. In St-Camille the Mine de rien committee took a firm stance against the gold mining exploration activities, advocating for the rejection of any oil, gas, or mining activities that would undermine any economic, social and environmental activity within the limits of the locality, including the growth of its agricultural sector. This statement on how communities should be able to protect and benefit from local food producing resources echoes the language of the St-Camille Strategic Plan. It is also consistent with how Pimbert (2008) situates the search for Food Sovereignty within a wider affirmation of the right to self-determination and endogenous development.

Additional resources and/or examples

Municipal resolutions: In 2013 the BC Federation of Municipalities endorsed resolution B-72 asking "the British Columbia government to legislate the prohibition of importing, exporting and growing plants and seeds containing genetically engineered DNA, and raising GE animals within BC, and to declare through legislation that the province of BC is a GE Free area in respect to all plant and animal species"

(http://www.ubcm.ca/assets/Resolutions~and~Policy/Resolutions/Resolutions%20Book%202013.pdf). The adoption of resolution B-72 is consistent with how Food Sovereignty's approach towards genetic resources is based on an anti-patent, communal approach (Lee 2012, 1).

INDICATOR #9

Collective entrepreneurship is contributing to building the local food system.

Collective entrepreneurship in the local food system can promote Food Sovereignty by bringing together the social benefits of collective action and the power of the local economy. Local governments seizing opportunities to support or spearhead collective entrepreneurship feeds into Food Sovereignty Planning. Collective entrepreneurship pools resources to create opportunities to deploy creative entrepreneurial efforts while distributing the financial risk inherent to starting an enterprise amongst community members. Because funders are often community members, the enterprise may be more likely to be aligned with the needs of, and accountable to, the collectivity.

The development of the St-Camille real estate projects, La Clé des Champs, and the local investment association le groupe du coin, as well as the partly community-funded SSI abattoir, are forms of collective entrepreneurship endeavours. La Clé des champs was originally a solidarity coop founded on the needs for, and principles of, local job creation and the production and availability of products derived from local agriculture and forestry. In this case, the fact that the community was the departing point, not just a resource of the project, helped generate concrete supportive actions from community members (Lair 2011). While collective entrepreneurship has a crucial role to play in community-based infrastructure development, it can also help foster and secure community support

and input. This can result in wider buy-in, as was the case with the SSI abattoir and the St-Camille real estate development projects. Collective entrepreneurship can thus help empower individuals and/or groups engage in shaping the food system, which is consistent with how Food Sovereignty emphasizes that social connections are opportunities to reclaim the food system (Wittman, Desmarais, and Wiebe 2010).

Collective entrepreneurship can help fund the actions and projects congruous with food and agriculture policy development and implementation. It can also serve to "shake things up", to experiment with and explore various enterprise models. For example, the transfer from collective to private ownership of La Clé des Champs resulted in the development of an intermediary model where the fabric of the enterprise is simultaneously collective and private (Laroche 2013a). Collective entrepreneurship, by developing innovative and groundbreaking models, might serve to pave the way for the adoption, and the shaping, of effective and better-informed Food Sovereignty Planning.

Additional resources and/or examples

*The FarmWorks Investment Co-op***:** Founded by community leaders from the food, health and business sectors in Nova Scotia, FarmWorks Investment Limited was incorporated as a for-profit cooperative on May 18 2011. FarmWorks is an investment cooperative developed to address risks associated with a lack of food self-sufficiency, restore rural vitality, increase access to healthy food and stimulate economic growth in Nova Scotia. FarmWorks mission is to "Promote, and provide, strategic and responsible community investment in food production and distribution in order to help increase access to a sustainable local food supply for all Nova Scotians". FarmWorks Investment Co-operative Limited has established a "blind pool" Community Economic Development Investment Fund

(CEDIF) that provides equity and subordinated debt financing for farms, farm-based secondary processing, and value-added food products. FarmWork's objectives are to:

- Develop and market an annual CEDIF that raises a minimum of $100,000 in the first year and $5 million after 5 years.
- Invest strategically in enterprises to increase recipient's sustainable local food production and profitability by 10% per year.
- Provide mentoring support for new businesses.
- Facilitate farm and food-related innovation and diversification in partnership with government and non-government organizations.
- Monitor and evaluate emerging and existing investment tools and opportunities.

INDICATOR #10

Partnerships with local organizations as well as provincial and national entities contribute to:

- **Developing community-based research systems and/or projects.**
- **Financing and/or supporting local agriculture and/or agri-food infrastructures development projects**

Leveraging partnerships with local organizations as well as provincial and national entities can serve to develop community-based research systems/projects and finance agri-food infrastructures development projects, both of which can support Food Sovereignty pillars. Feenstra (2002) sees three themes underlying the social, political, intellectual and economic spaces that need to be created and protected to achieve sustainable community food systems: Public participation, partnerships and principles. Partnerships also feed into Food Sovereignty's radical

perspective on cooperation and co-production as described by Schanbacher (2010).

St-Camille is immersed in a complex web of partnerships and collaborations comprising governmental educational institutions as well as regional and local actors and organizations. The St-Camille municipality was said to foster constant collaboration between organizations while the CDSESC emerged as a positively impactful long-term community-municipality partnership. The success of some projects is attributed to St-Camille's ethos of knowledge co-construction (Laroche 2013a) and achieving multiple levels of endogenous and exogenous support (Dufresne 2012). For example La Clé des Champs emerged from ideas explored during a salon on agricultural diversification and a short course in applied ethics offered by Sherbrooke University and primarily delivered at Le P'tit Bonheur. Lair attributes the success of La Clé des Champs to the community's solid social capital, consistent support by St-Camille mayors and the presence of shared values, strong leadership skills as well as administrative and management experience amongst participants. Also important was the early development of partnerships and vertical linkages with financing institutions and other organizations and businesses (Lair 2011).

The 2008 SSI AFP can be seen as a community-based research project that drew from the expertise of, and was supported by, local, provincial and national food and agriculture organizations. The AFP was initiated following a recommendation from the SSI Agricultural Advisory Committee. The SSI Farmer's Institute and Island Natural Growers collaborated with the BC Ministry of Agriculture and Lands to initiate the AFP process. The AFP was conducted by Masselink Environmental Design consultants and drew heavily from public consultations, a 2006 Land Use Inventory by the BC Ministry of Agriculture and Lands and

Statistics Canada data. The AFP was funded in part by the Investment Agriculture Foundation of BC (through Agriculture and Agrifood Canada's Advancing Canadian Agriculture and Agri-Food program). The SSI Farmer's Institute, the BC Ministry of Agriculture and Lands, the SSILTC, and the CRD provided additional funding and support. The AFP prompted the agriculture infrastructure development projects. The community as well as governmental and private entities are funding these projects.

Additional resources and/or examples

*Alternative Land Use Services (ALUS)***:** ALUS is a Canada-based, community-developed and farmer-delivered program that support and farmers and ranchers in enhancing and maintaining "nature's benefits". ALUS demonstrates the potential of multi-level partnerships in supporting, and undertaking research relevant to, both local agriculture and conservation. Currently operating in Ontario, Saskatchewan, Prince Edward Island and Alberta, ALUS financially compensates farmers to retain and reconstruct natural areas (such as wetlands, grasslands, riparian areas and trees), rehabilitate life-support processes (such as water filtration and purification, nutrient cycling and carbon sequestration), and helps restore declining biodiversity: Natural benefits include habitat for fish and wildlife including waterfowl, species at risk and native pollinator insects, cleaner air and water, and sustainable food production on working landscapes (Alternative Land Use Services 2013). ALUS arose from a desire to better align the interests of farmers and environmental groups. A such, it follows eight core principles:

- "Community-developed – Developed by local communities to be flexible and respect local agricultural and environmental priorities.
- Farmer-delivered – Farmers and ranchers are in the best position to deliver nature's benefits on their land.

- Targeted – Select marginal and ecologically sensitive parcels of land are managed in a different manner to produce nature's benefits.
- Market Driven – Benefits from nature produced by project activities have economic value.
- Voluntary – Farmers and ranchers choose to participate and have flexible agreements that suit their operation.
- Integrated – Delivery will complement existing conservation programs including federal and provincial government policy frameworks.
- Accountable – Projects are independently monitored and audited.
- Science-based- Social, economic and environmental sciences guide program development and implementation" (Alternative Land Use Services 2013[35]).

ALUS funding is provided by a wide array of sources, including local, provincial and federal government, private foundations, angler and hunter groups, stewardship councils, and environmental groups. Other supporters also donate in-kind support. A number of research projects have been conducted on the ALUS program as a whole or on specific sites by independent researchers, governments and other organizations. See http://alus.ca/.

The Delta Farmland and Wildlife Trust: The Delta Farmland and Wildlife Trust (Delta, BC) was established in 1993 by a group of local farmers and conservationists. The Delta Farmland & Wildlife Trust is a non-profit organization working to promote the preservation of farmland and wildlife habitat on the lower Fraser River delta through co-operative land stewardship with local farmers. As such, it is a good example of farmers and conservationists developing synergistic relationships and leveraging their own set of expertise and support

[35] Available online at http://alus.ca/how-alus-works/.

networks to benefit the social, economic and environmental activities of both sectors. The Delta Farmland and Wildlife Trust: administers and raises funds for its Stewardship Programs; works with farmers to assess and improve agricultural management practices; conducts research on the quality of wildlife habitat resulting from the Stewardship Programs; and, coordinates educational activities pertaining to the role of local farmland for local food production and wildlife conservation. The Stewardship Programs provides $325,000 of cost-sharing funding to establish wildlife habitat and/or to invest in long-term farm soil fertility. The Delta district municipality, the Delta Agricultural Society, the credit union VanCity, Ducks Unlimited, the Vancouver Foundation, the Habitat Conservation Trust Foundation and the British Columbia Waterfowl Society, largely funds the stewardship programs. The stewardship programs include:

- The Grassland Set-aside Stewardship Program, which sets aside an average of 500 acres of grassland annually.
- The Winter Cover-crop Stewardship Program, which ensures an average of 3000 acres are seeded to winter cover crops annually.
- The Hedgerow & Grass Margin Stewardship Programs, which protects on average over 12kms of hedgerows and grass margins annually.
- The Laser Levelling Stewardship Programs, which aim to minimize the impact of water erosion by cost-sharing field levelling.
- The Field Liming Stewardship Program, which increases soil productivity and maintains the viability of local food production by cost-sharing the application of lime to agricultural fields (Delta Farmland and Wildlife Trust 2013). See http://www.deltafarmland.ca/.

The Threshold to Maine Resource Conservation and Development Area (RC & D)

Operating in the York, Cumberland, Oxford and Franklin Counties of Maine (United States), The Threshold to Maine Resource Conservation and Development Area (RC & D) was formed in 1970 under the US Food and Agriculture Act of 1962 (Public Law 87-703). The RC & D was established as part of a national movement seeking to address issues pertaining to rural communities and natural resource management. More specifically, the movement responded to a need for a local partner for the Soil Conservation Service federal agency (now the Natural Resources Conservation Services). RC& D sponsors include the Soil and Water Conservation Districts and County Commissioners, as well as the Greater Portland and Androscoggin Valley Council of Governments. The Threshold to Maine RC& D Area is a non-profit corporation whose purpose is to foster and advocate for natural resource protection through community restoration. The RC & D enables communities to solve natural resource problems by:

- Disseminating information and engaging in public education.
- Expanding involvement opportunities for local government, conservation units, non-profit organizations and individuals by providing technical and financial resources.
- Helping sponsors and others access all USDA programs.
- Partnering with Agencies such as the Natural Resources Conservation Service, Rural Development, Forest Service, and Farm Service Agency on a wide variety of issues.

Through its partnership with federal agencies, the RC & D allows local residents to benefit from highly skilled federal technical assistance providers while supporting the design and implementation of programs tailored to meet local needs. The Threshold to Main Area has focused on agricultural development by:

- Assisting communities in rebuilding their local farm sector by supporting farm surveys and farmland inventories.
- Establishing Shared Use Commercial Kitchens.
- Working with local farm groups and organizations on web-based direct marketing initiatives.
- Helping communities establish local Agriculture Commissions and assisting those organizations develop strategic initiatives (Anonymous). See http://thresholdtomaine.org.

INDICATOR #11

Synergies between local agriculture and other aspects of community health are recognized and reflected in community planning and project development.

The six Food Sovereignty pillars are considered to be interlinked and inseparable and should be implemented as such. The capacity to recognize and leverage interconnections is thus at the centre of the Food Sovereignty concept. The Food Sovereignty agenda is tied to other municipal mandates because food systems impact quality of life (Pothukuchi, 1999) and food system planning analyzes connections between food and other planning concerns (Pothukuchi, 2000). Food Sovereignty Planning provides opportunities to leverage the synergies between local agriculture and other aspects of community health. Identifying and integrating these synergies in community planning and project development advance Food Sovereignty imperatives.

Community characteristics that first appear as minimally related to Food Sovereignty can emerge as barriers and/or opportunities. For example, SSI

agriculture is impacted by both the lack of housing and the local government structure. St-Camille's declining population, coupled with pressure from the resource extraction industry and the need to maintain vibrant communities, are tied to the region's shifting agricultural context.

Certain initiatives and projects harness the synergistic relationship between local agriculture and other aspects of community health in ways that are more obvious. For example the 2005 SSI Community Energy Strategy includes food localization targets, identifies local agriculture as a potential contributor to climate change mitigation, and promotes further cooperation amongst existing food and agriculture organizations. In St-Camille the Parc Agrovillageois identified the appeal of living in close proximity to a market garden and other community services, integrated this feature to the project to attract newcomers, and promotes a development model that protects agricultural land while socially, economically and physically bringing closer together producers and consumers. St-Camille embraces the agricultural diversification concept in part because diversity is equated with health and because agriculture is linked to sustainable ways of living, producing and consuming. La Clé des Champs was established following a collective exploration of citizen responsibility regarding community vitalization. Although primarily founded to increase community food autonomy, La Clé des Champs objectives included job creation, knowledge transmission and access to collective property, thus anchoring the project in a broad local development perspective.

Additional resources and/or examples

Procurement programs for daycares, health care facilities and cafeterias:
Équiterre is a Montréal-based environmental non-profit who first promoted and developed a network for the CSA model in Québec. The development of

ecological and fair-trade consumption models at the citizen and institutional levels is central to Équiterre's mandate. From 2002 to 2005 Équiterre piloted an "Organic Day-care" program ("Garderie Bio") by linking four farms part of its CSA network to thirty-seven day care centres in 9 different regions of the province. From 2007 to 2009, Équiterre piloted À la Soupe, another program linking CSA farms with, and providing support and educational material to, school, campuses, daycares and healthcare facilities. À la Soupe participating institutions were distributed in 7 regions and included 12 daycares, 15 primary schools, 2 high schools, 1 cégep, 1 cafeteria hospital (for personnel and visitors), 1 extended care centre and 19 CSA farms (Équiterre 2010). Équiterre is now partnering with the 3 Regional Conference of Elected Officers of Montérégie (Montérégie Est, Longueuil and Vallée-du-Haut-Saint-Laurent) and the "Regroupement des centres de la petite enfance de la Montérégie (Montérégie's regional group of child care centres) to develop Croqu'Plaisir. Croqu'Plaisir is another local food sourcing program reaching 15 daycares centres (20 facilities). Croqu'Plaisir is funded in part by Québec en Forme, a provincial government program promoting healthy eating and exercise amongst young people and the MAPAQ (Équiterre 2013).

The idea of partnering day cares, schools and health care facilities with CSA farms was a way to promote the CSA model beyond Équiterre's existing network linking families and farms. Participating institutions are motivated by the perspective of accessing fresh, local produce while benefitting from the technical and educational support provided by Équiterre. Elected officers involved in the project were keen to support access to local and healthy food while simultaneously financially supporting farms in their region. The objectives of Équiterre's institutional local food sourcing programs is to:

- Promote healthy, ecological and solidary food procurement in public and parapublic institutions.
- Raise awareness regarding the social, environmental and economic dimensions of food.
- Contribute to the financial viability of local farms (Équiterre 2010).

In Canada, there exist several other procurement programs aiming to connect public and para-public institutions with local farmers. Farm to Cafeteria Canada is a national network that promotes supports and links farm to cafeteria programs, policy and practice to increase access to healthy, local and sustainably grown foods in public agencies. Farm to Cafeteria works with schools, campuses and health care facilities. The Growing Up Organic (GUO) project was developed by the Canadian Organic Growers to increase organically grown food served in Canadian institutions. GUO is primarily active in Ontario, Manitoba and British-Columbia.

See http://www.equiterre.org/sites/fichiers/equiterre_guide_implantation_LR.pdf, http://www.farmtocafeteriaCanada.ca/, and http://www.cog.ca/our-work/growing-up-organic/.

Food Hubs: Food hubs and community food centres typically work at the intersection of the local food system movement and the food justice movement. Their common and defining feature is that they are social and physical spaces embracing food as a medium to build community, health and skills. While some are primarily concerned with food access and food literacy, others emphasize food production skills and knowledge. The balance they strike between various program and activities reflect the fabric and the priorities of the community they

are rooted in. Depending on their cultural, social and spatial contexts, food hub and community food centres activities include community gardens, partnerships with or support programs for local farmers, educational (cooking and gardening) programs, meals, food banks, and more.

The Intervale Center: The Intervale Center is a community-based organization that transformed an abandoned city property into a key resource for local agriculture and community food security. It was established in 1988 and is situated within Burlington's (Vermont, USA) municipal limits. In the 1980's the Intervale property was largely abandoned and its agricultural fields served as an informal dumping ground. In 1986 Will Raap, founder of Gardener's Supply Company, spearheaded a clean up effort to restore the Intervale property. In 1987, the city of Burlington rezoned the Intervale land to exclude industrial and residential growth. Raap and a group of volunteers started to rebuild soil fertility and reintroduce farming and gardening activities. Their efforts eventually led to the creation of the Intervale Center, an internationally recognized centre for sustainable agriculture who's mission is to strengthen community food systems. It currently stewards 350 acres of land and has developed and coordinates the following programs.

- The Farms Program is a farm incubator program operating on 135 acres. It aims to provide access to training, land, capital and markets, build knowledge of equipment operation and maintenance, and prevent a feeling of isolation in new farmers. This program contributes 60 full-time and seasonal jobs to the local economy.
- Success on Farms (SOF) is a business-planning program that helps Vermont farms and value-added businesses improve their viability.
- The Intervale Food Hub is an online local foods market offering convenient, year-round delivery.

- The conservation nursery grows native locally sourced trees and shrubs for riparian restoration projects throughout Vermont.
- The Abenaki garden honours and the agricultural heritage of the Abenaki.
- The Intervale Gleaning and Food Rescue relies primarily on volunteer labour to glean and rescue fresh food from Intervale farms and package and distribute weekly free food shares (The Intervale Center 2013). See http://www.intervale.org/.

The Stop Community Food Centre: Once an under-resourced Toronto-based food bank, The Stop Community Food Centre (CFC) strives "to increase access to healthy food in a manner that maintains dignity, builds health and community and challenges inequality". The Stop's main office offers a variety of services including the drop-in centre (which provides free meals and other services), a food bank, a perinatal program, a community action program, bake ovens and markets, community cooking, community advocacy, sustainable food systems education and urban agriculture. The Green Barn, the Stop's sustainable food production and education centre, houses a greenhouse, food systems education programs, a compost demonstration centre, a community bake oven, a sheltered garden, and the Global Roots Garden, which features crops highlighting Toronto's ethnically diverse population (The Stop Community Food Centre 2013). Levkoe and Wakefield (2011) demonstrate that the Stop's contribution to the food movement is four-fold; Firstly, the Stop CFC is explicitly committed to a broad set of core values (antipoverty, ecological sustainability, food and wellness, and community building) and relies on an integrative approach to address food system issues; Secondly, the Stop CFC's integrated programming goes beyond service delivery to provide a space for food related activities and organizing; Thirdly, the Stop CFC subsidizes a more equitable and sustainable food distribution system by applying its own resources (donations, volunteer labour and social enterprise

activities) to procure quality food at manageable cost while providing sustainable livelihoods to program suppliers ; and, fourthly, the Stop CFC engages people in the politics of their everyday lives by connecting food to broader societal issues, thus building infrastructures contributing to longer-term social and ecological change while addressing short-term/immediate food needs (Levkoe and Wakefield 2011, 249). See http://www.thestop.org/.

Community Food Centres Canada: The organization Community Food Centres Canada (CFCC) was founded in July 2012 to nationally expand the innovative Community Food Centre model developed at The Stop. CFCC works with organizations to develop CFC's and aims to develop 15 partner CFC's across Canada by 2017. As of 2012, three CFC sites were operational (Toronto's The Stop CFC, Perth's The Table CFC, and Stratford's The Local CFC) and three other sites were expected to open in 2014 (Winnipeg's The NorWest Co-op CFC, Darmouth's The Darthmouth CFC, and Toronto's The Regent Park CFC). See http://cfccanada.ca/.

Table 3: Food Sovereignty assessment framework summary		
Indicator	**Food Sovereignty Planning**	**Examples/resources**
1	• Agricultural plans help develop a holistic understanding of the food system as defined by Ericksen (2008) and inherent to Wittman's (2010), Carney's (2012) and Pimbert's (2008) interpretation of the Food Sovereignty analytical framework. • Agricultural plans feed into Pothukuchi and Kaufman's (2000) five strategies to engage in food system planning. These strategies embed food system in communities.	• North Saanich: Agriculture Plan, Whole Community Agricultural Strategy, Agriculture Economic Development Strategy • BC Ministry of Agriculture AAP guide • MAPAQ PDZA guide
2	• Entities mandated to address food issues through projects and dialogues help create and protect the social, political, intellectual and economic spaces seen by Feenstra (2002) as necessary to the emergence of just and sustainable food systems. • Entities leveraging community interests to support local agriculture and local consumption is consistent with Schanbacher's view that Food Sovereignty is rooted in a notion of interdependence within, and development focused on the interests of, the community.	• Hardwick's Center for an Agricultural Economy
3	• Community plans integrate food system considerations to broader community priorities and leverage planning and land use management to move towards Food Sovereignty. • Food Sovereignty is nestled in a wider affirmation of the right to self-determination and endogenous development (Pimbert 2008). • Other instruments of food system thinking (i.e. food charters and action plans) foster organizational motivation and cross-sectoral understanding, galvanize actors, set a vision and leverage additional resources (Mac Rae and Donohue, 2013).	• Local Food and Community Self-Governance ordinances: Maine (US) towns of Brooksville, Sedgwick, Penobscot, Blue Hill, Trenton, Hope, Plymouth, Livermore and Appleton
4	• The activities of community-based enterprises embody Food Sovereignty principles. • Food Sovereignty positions the social connections inherent to producing, consuming and sharing food as opportunities to reclaim control over the food system (Wittman, 2010).	• The Nelson House Country Foods program
5	• Food system data can foster participatory and informed decision-making processes characteristic of Food Sovereignty. These participatory planning contexts and the development of integrated food and agricultural policies are essential in shifting from a food security to a Food Sovereignty model (Carney, 2012). • Food system data enhances the capacity of civil society to engage with food policy, which relates to Patel's (2009) and Pimbert's (2009) view that Food Sovereignty empowers civil society to substantively engage with food policy. • The advantages of conducting a food system assessment identified by Meter (2011) highlight that this methodology is suited to Food Sovereignty Planning.	• BC: "Community Food System Assessment Guide" and "Community Food System Assessment: A Companion Tool for the Guide". • US: "What's cooking in your Food System: A guide to community food system assessment" and"Facilitators Guidebook 2011: Community Based Food System Assessment and Planning"
6	• Food Sovereignty is characterized by participatory planning contexts (Carney, 2012), the pursuit of direct democracy and equity (Pimbert, 2008) and a focus on local community	• "Whole Measures for Community Food Systems"

	development where interests of community members are interconnected (Schanbacher, 2010).	
7	• Opportunities to support local food entrepreneurs and farmers exist in all food system activities identified by Pothukuchi's (1999). • Food Sovereignty includes the post consumption stage of human interaction with food (Carney, 2012) and seeks activities and resource use patterns compatible with ecological sustainability (Pimbert, 2008). • Sustainable food systems are anchored in the public domain and involve an interdependent web of activities that build the civil commons (Sumner, 2012). • Co-producers contribute to re-envisioning the human relationship to the food (Schanbacher, 2010).	• The Vermont Food Venture Center • Incubator farm programs: FarmStart, Just Food's Farm program in and the Plateforme Agricole de l'Ange-Guardien • Land linking services: Banques de terres, FarmLINK and Linking Land and Farmers.
8	• Food Sovereignty requires a shift from compartmentalized to integrated food and agricultural policies (Carney, 2011) • Food Sovereignty is situated within a wide affirmation of the right to self-determination and endogenous development (Pimbert, 2008)	• No-GMO resolution endorsed by the BC Federation of Municipalities
9	• Food Sovereignty emphasizes that social connections are opportunities to reclaim the food system (Wittman, Desmarais, and Wiebe 2010) • Collective entrepreneurship in the local food system can advance Food Sovereignty by providing opportunities to deploy creative entrepreneurial efforts.	• FarmWorks Investment Co-operative
10	• Partnerships feed into Food Sovereignty's radical perspective on cooperation and co-production as described by Schanbacher (2010). • Three themes underlie the creation and protection of social, social, political, intellectual and economic spaces that lead to sustainable systems: Public participation, partnerships and principles (Feenstra, 2002).	• Alternative Land Use Services • The Delta Farmland and Wildlife • The Threshold to Maine Resource Conservation and Development Area
11	• The Food Sovereignty agenda is tied to other municipal mandates because food systems impact the urban quality of life (Pothukuchi, 1999) and food system planning includes analyzing connections between food and other planning concerns (Pothukuchi, 2000)	• Local food procurement programs: Équiterre, Farm to Cafeteria Canada, and Growing Up Organic • Food hubs and centres: the Intervale Center and The Stop • Community Food Centres Canada

Conclusion

This thesis aimed to bridge food system planning theory and practice with the Food Sovereignty concept. I call the result of this merging Food Sovereignty Planning, which I define as the integration of Food Sovereignty principles into policies, plans, and programming at all levels of governance. I further narrowed my research focus to investigate how rural local governments engage, or could engage, in Food Sovereignty Planning. To my knowledge most local governance and food system research has been conducted in larger, often urban communities. Also, Food Sovereignty concerns food producers and most Canadian food producers live and produce food in small rural communities. I explored how small rural Canadian communities might engage in Food Sovereignty Planning by asking:

1) How are small rural communities applying Food Sovereignty to create just and sustainable food systems?

2) What Food Sovereignty indicators can communities use to guide and benchmark progress towards just and sustainable food systems?

To investigate these questions I conducted a literature review (Chapter One), situated Canadian communities in light of Food Sovereignty Planning (Chapter Two), conducted case studies of St-Camille and SSI (Chapter Three), and elaborated a Food Sovereignty assessment framework based on case study findings (Chapter Four). The proposed Food Sovereignty framework is composed of eleven indicators extracted from overlapping case study key achievements, best practices, challenges and barriers and other relevant elements. The nature of these indicators reinforce the notion that Food Sovereignty is procedural and committed to action more than it is committed to a precise definition, a utopian ideal or a linear articulation of justice and sustainability in the food system. Alcala (2013) argues, “Food Sovereignty’s strength is in its particular relation to actually

existing conditions, rather than its theoretical universality" (Alcala 2013). Both the St-Camille and SSI case studies are relatively detailed because undertaking a Food Sovereignty analysis requires capturing both the process at work and the existing conditions. The proposed Food Sovereignty assessment framework thus establishes a measure of the process that is creating and animating the food system and is relatively less concerned with, say, the volume, variety, and food miles of a community's food supply. In other words the eleven indicators can be use to guide and benchmark perhaps not so much the *progress*, but rather the *process* towards just and sustainable food system.

My hope is that this thesis expands our view of what Food Sovereignty-related action can look like in North America. In the Global North personal subsistence is enmeshed in capitalist wage labour and Food Sovereignty activism often takes place in the consumer realm rather than through commoning activities (Alcala 2013). The case studies (and some of the additional resources and examples in the comparative analysis section) provide examples of how, in a North American context, Food Sovereignty activism can also involve collective entrepreneurship (i.e. La Clé des Champs) and ownership of the civil commons (i.e. the SSI abattoir). This thesis also intended to contribute to food system planning, a growing field whose full development necessitates additional attention and support. Three recommendations emerge from the Canada-focused report "Municipal Food Policy Entrepreneurs":

"1. There is a need for actors and organizations working in municipal food policy across Canada to create a network to share information and best practices and build capacity for food policy work.

2. Municipal food initiatives would benefit from identifying a range of ways to document and evaluate their work in order to demonstrate successful processes for social change as well as food system and other municipal/regional impacts.

3. Policy makers at various government levels should clarify jurisdictional food policy connections and define the linkages between municipal food policy efforts and provincial and federal food, agriculture, public health, and other policy domains" (MacRae and Donahue 2013, 30).

It is my impression that the Food Sovereignty assessment framework is one way (among many) of documenting and evaluating the processes by which food system change is operating, thus directly feeding into recommendation #2. By documenting best practices, the case studies and some of the additional examples and resources can help advance recommendation #1. Food Sovereignty Planning might help frame how we conceive the connections and linkages between local food policy and other levels of, and domains impacted by, food policy and programming, thus contributing to recommendation #3.

While some communities may be attracted to the Food Sovereignty model due to its radical nature and its potential in serving as a change agent, it may intimidate or be politically incongruous to others. It is likely that some local governments may refrain from engaging with the profound aspirations of Food Sovereignty because they are arguably relatively ambitious and radical. Also, as a political concept with a political agenda, Food Sovereignty calls for action. The compilation of data and analysis processes are desirable because they can help a community move towards greater Food Sovereignty. Positioning a Food Sovereignty assessment and action framework as a tool for community activism implies that the success of a Food Sovereignty assessment and action framework is to be primarily judged not by the quantity, quality and consistent measurement of the collected data, but rather by its capacity to affect change in the concerned community. How then, do we design a Food Sovereignty assessment and action framework that does not end up sitting on a shelf? How can the resources

dedicated to this process be used so as to maximize impact at the community level? What community processes are best suited to the elaboration of a Food Sovereignty assessment and action framework? It is beyond the scope of this research project to give specific examples of strategies that could achieve the process-oriented goal of generating community engagement around Food Sovereignty. These are essential questions that need to be addressed in future academic research and/or in the field.

The Food Sovereignty concept is also arguably fraught with assumptions. Although this thesis does not directly question these assumptions, the Food Sovereignty assessment framework might contribute to verifying these assumptions. Although the Food Sovereignty movement aims to radically change the food system, it cannot claim to know with certainty how to make that change. SSI and St-Camille case studies present context-specific interventions that are related to Food Sovereignty. But the question of how effective these will be in creating more just and sustainable food systems in the long-term remains unanswered. We also do not know that what is developing in St-Camille and SSI is replicable elsewhere. Although we may speculate as to why and how these interventions are or might be effective, nothing can be guaranteed or proven at this point. In my opinion, being able and willing to evaluate and debate the efficacy of local Food Sovereignty actions and how they are connected and integrated to the provincial and federal food policy domain is likely to strengthen the Food Sovereignty movement.

There are many potential directions for future research. Drawing upon other community case studies could augment the comprehensiveness of the framework by, for example, integrating several missing Food Sovereignty considerations such as indigenous food traditions and fisheries. Since the Food Sovereignty

concept is globally applicable, compiling and comparing international case studies might significantly expand the breadth of what we perceive as Food Sovereignty Planning opportunities. Working closely with a community to apply and refine the Food Sovereignty framework is another avenue, as is presenting the framework to, and incorporating the feedback of, food system planning practitioners and academics. Conducting more thorough case studies research would also allow us to narrow in on the specific interests and experiences of key stakeholder groups such as food producers. More work could also be done on articulating the theoretical basis of Food Sovereignty Planning.

Finally, in this thesis as in much of the existing literature, the Food Sovereignty concept emerges as being about much more than food: It concerns how we govern ourselves and relate to one another on both a local and global scale. In our current era of globalization, achieving Food Sovereignty will require undertaking Food Sovereignty Planning at multiple levels of governance, starting at the local level and extending to international policy-making arenas. Nonetheless, Food Sovereignty is, at its core, a function of community-based control over the food system. This thesis revealed how two rural local governments are building local interdependence and embracing a self-determination approach and endogenous development ethos to community planning. It is one step towards observing and imagining the potential contribution of local governments to building just and sustainable food systems for all.

Appendix I: Food Sovereignty Pillars

SIX PRINCIPLES OF FOOD SOVEREIGNTY*			
	Food Sovereignty:	**is FOR**	**is AGAINST**
1.	**Focuses on Food for People:**	Food sovereignty puts the right to sufficient, healthy and culturally appropriate food for all individuals, peoples and communities, including those who are hungry, under occupation, in conflict zones and marginalized, at the center of food, agriculture, livestock and fisheries policies;	and rejects the proposition that food is just another commodity or component for international agribusiness.
2.	**Values Food Providers:**	Food sovereignty values and supports the contributions, and respects the rights, of women and men, peasants and small scale family farmers, pastoralists, artisanal fisherfolk, forest dwellers, indigenous peoples and agricultural and fisheries workers, including migrants, who cultivate, grow, harvest and process food;	and rejects those policies, actions and programs that undervalue them, threaten their livelihoods and eliminate them.
3.	**Localizes Food Systems:**	Food sovereignty brings food providers and consumers closer together; puts providers and consumers at the center of decision-making on food issues; protects food providers from the dumping of food and food aid in local markets; protects consumers from poor quality and unhealthy food, inappropriate food aid and food tainted with genetically modified organisms;	and rejects governance structures, agreements and practices that depend on and promote unsustainable and inequitable international trade and give power to remote and unaccountable corporations.
4.	**Puts Control Locally:**	Food sovereignty places control over territory, land, grazing, water, seeds, livestock and fish populations on local food providers and respects their rights. They can use and share them in socially and environmentally sustainable ways which conserve diversity; it recognizes that local territories often cross geopolitical borders and ensures the right of local communities to inhabit and use their territories; it promotes positive interaction between food providers in different regions and territories and from different sectors that helps resolve internal conflicts or conflicts with local and national authorities;	and rejects the privatization of natural resources through laws, commercial contracts and intellectual property rights regimes.
5.	**Builds Knowledge and Skills:**	Food sovereignty builds on the skills and local knowledge of food providers and their local organizations that conserve, develop and manage localized food production and harvesting systems, developing appropriate research systems to support this and passing on this wisdom to future generations;	and rejects technologies that undermine, threaten or contaminate these, e.g. genetic engineering.
6.	**Works with Nature:**	Food sovereignty uses the contributions of nature in diverse, low external input agroecological production and harvesting methods that maximize the contribution of ecosystems and improve resilience and adaptation, especially in the face of climate change; it seeks to "heal the planet so that the planet may heal us";	and rejects methods that harm beneficial ecosystem functions, that depend on energy intensive monocultures and livestock factories, destructive fishing practices and other industrialized production methods, which damage the environment and contribute to global warming.
These six principles are interlinked and inseparable: in implementing the food sovereignty policy framework all should be applied.			

*This table is adapted from the International Planning Committee for Food Sovereignty website at http://www.foodsovereignty.org/Aboutus/WhatisIPC.aspx

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